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How the best known art package for RISC OS has been revived

Showing off

The Wakefield Show is imminent and we look at who will be there

Font power

Which fonts should you be using and where should they be put?

Education special

Summer term is the time for school trips – which web sites will help you plan where to go?

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ISSUE 246 MAY 2002 £4.20

summer SIZZLERS!

CDRW KINETIC RiscPC

The world's fastest RISC OS computer is available now! The Kinetic RiscPC delivers a breath-taking performance and is up to 40 times faster than the original RiscPC!

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Code	Description	Offer price
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Editor's Comment

The Wakefield Show fast approaches once more – these shows never seem to creep up on us. They storm in demanding attention. And this time I think we really are in for a treat. Most companies now fight shy of premature promises that never reach fulfilment and for that we can actually be grateful.

Riscstation has a gem for us this time, the portable will have finally arrived, in fact there is a reasonable probability that those people who put down their deposits will receive it before the Wakefield Show itself.

Which is nice.

On top of that we have the 99.9% probability of the appearance of the USB port, admittedly that was announced slightly early but no one has been advertising it so they can be forgiven for getting a little bit ahead of themselves. You can thank Simtec for this nice present, and companies such as Photodesk and ExpLAN for working closely with Simtec to bring the design to completion. Once the full card interface is released you can expect a whole host of product drivers appearing which will give the RISC OS dealers more products to offer.

Which is also nice.

All in all I think we are in for a very nice show indeed.

Rob Donaldson
Editor

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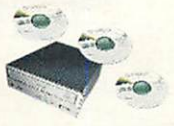

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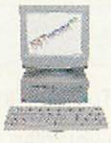

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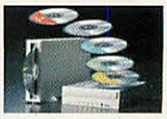

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ARM3 (25MHZ) & FPA10		£85.00	£99.87
FPA10 (25MHZ)		£45.00	£52.87
A310 800K Floppy(old style)	#	£12.00	£14.10
A4x0/1 800K Floppy	#	£12.00	£14.10
AXX0 keyboards	#	£49.00	£57.58
A310 / 400 PSU's (referb)	#	£15.00	£17.62
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IDE 500 MB hard drive	I	£30.00	£35.25
IDE 1 GB hard drive	I	£30.00	£35.25

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A30X0 analogue / user card	#	£15.00	£17.62
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A3000 PSU's (referb)	#	£15.00	£17.62
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A30X0 midi / user card	#	£20.00	£23.50
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340MB IDE hard drive & i/f		£95.00	£111.62
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1-2 MB memory	#	£15.00	£17.62
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A3010 1.6M Floppy drive	R	£12.00	£14.10
A3010 1.6M Floppy drive		£20.00	£23.50
A3010 keyboards (green)	#	£20.00	£23.50
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A30X0 midi / user card	#	£20.00	£23.50
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340MB IDE hard drive & i/f		£95.00	£111.62
500MB IDE hard drive & i/f		£100.00	£117.50
810MB IDE hard drive & i/f		£105.00	£123.37

Item marked # are referbished

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A3020 1.6M Floppy drive	R	£12.00	£14.10
A3020 1.6M Floppy drive		£20.00	£23.50
A30X0 keyboards	#	£20.00	£23.50
A30X0 analogue / user card	#	£15.00	£17.62
A30X0 midi / user card	#	£20.00	£23.50
170MB IDE hard drive		£35.00	£41.12
340MB IDE hard drive		£45.00	£52.87
500MB IDE hard drive		£55.00	£64.62

A4000 upgrades		exc VAT	inc VAT
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2-4 MB memory		£40.00	£47.00
A4000 1.6M Floppy drive	R	£12.00	£14.10
A4000 1.6M Floppy drive		£20.00	£23.50
A4000 keyboards	#	£49.00	£57.58
A4000 analogue / user card	#	£15.00	£17.62
A4000 midi / user card	#	£20.00	£23.50
IDE 200 MB hard drive	I	£20.00	£23.50
IDE 500 MB hard drive	I	£30.00	£35.25

A5000 upgrades		exc VAT	inc VAT
Acorn Style Mouse		£17.01	£19.99
2-4 MB memory		£45.00	£52.87
4-8 MB memory	*	£55.00	£64.62
FPA10 (25MHZ)		£45.00	£52.87
A5000 1.6M Floppy drive	R	£12.00	£14.10
A5000 1.6M Floppy drive		£20.00	£23.50
A5000 keyboards	#	£49.00	£57.58
IDE 200 MB hard drive	I	£20.00	£23.50
IDE 500 MB hard drive	I	£30.00	£35.25

A4 upgrades		exc VAT	inc VAT
Acorn Style Mouse		£17.01	£19.99
2-4 MB memory		£40.00	£47.00
A4 1.6M Floppy drive		£25.00	£29.37
170MB IDE hard drive		£35.00	£41.12
340MB IDE hard drive		£45.00	£52.87
500MB IDE hard drive		£55.00	£64.62

Monitors for above		Ex VAT	Inc VAT
AKF12 PAL 14" refurb	#	£45.00	£52.87
AKF52/53 *M/sync refurb*	#	£65.00	£76.37
AKF52/53 *M/sync NEW*		£127.00	£149.22
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Postscript colour Laser from	*A4*	*£1025.00*	*£1204.37*
Postscript B/W Laser	**A4**	**£245.00**	**£287.87**
Canon BJC 2100 colour (€)	A4	£50.21	£59.00
Canon BJC S400 colour €	A4	£67.23	£79.00
Canon BJC S450 colour €#	A4	£85.11	£100.00
Canon BJC S800 Photo #	A4	£285.00	£334.87
Epson Stylus 1520 colour	**A3**	£340.00	£399.50
HP 940 inc. RO driver	A4	£92.00	£108.10
HP 1220 inc. RO driver	A4	£288.51	£339.00
# Photo Drivers for		£58.72	£69.00
€ Needs Enhanced Drivers		£29.79	£35.00
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20.1GB *	**£60.00**	**£70.50**
40.0GB *	**£70.00**	**£82.25**
60.0GB *	£83.00	£97.53
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2Mb VRAM	£69.00	£81.08

(All Prices below include VAT) THE Software BARGAIN BASEMENT (if you don't see it please ask)

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New Discount Titles (this month)	(inc va
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Computer systems.....£13 + vat
All prices are correct going to press. E&OE
All goods are fully guaranteed but not supplied on approval.

Young Engineers

The Engineering and Technology Board (formerly the Engineering Council), have handed over the reins of the prestigious Young Engineers for Britain competition to Young Engineers clubs. Over the past two years of this long running and immensely popular competition, approximately two thirds of the entries at the national final have come from schools who are registered Young Engineers clubs.

This is an exciting development and the merger brings together two of the UK 's largest educational engineering programmes which will result in a more coordinated approach to the challenge of increasing the number of young people entering the engineering and technology professions.

The Young Engineers network, which consists of over 1,500 clubs in primary, secondary and FE colleges throughout the UK, has a current membership of over 13,000 students, whilst the Young Engineers for Britain competition attracts many thousands of entries from students who compete for the various prize categories that total over £50,000 plus visits to top engineering companies.

Many previous winners have seen their exciting inventions developed further, either by themselves or through the support of venture capitalists. In fact this can lead to the start up of a new business and the initial steps to that first £million!

An important element of the Young Engineers for Britain competition is the Junior K'Nex Challenge entered by numerous primary schools that compete locally, regionally and nationally. Year 5 and 6 pupils are set a task to develop a model of an engineering product; it could be a space station, fairground ride or even their practical ideas for a future transportation system.

This element of the competition is supported by the Neighbourhood Engineers programme. All the competing schools receive K'Nex kits to keep, with the hope that this experience has made them look at science, technology and engineering in a different light.

For more details and to obtain entry forms, contact: Joanne Phillips YEB project manager,

Tel: 01428 727825.
E-mail: **joanne-phillips@youngeng.org**

Win a domain

Acorn User and Spellings Computer Services Ltd are offering readers the chance to win a number of domain registration and Web hosting packages.

The main prize is a two year registration of any available .com, .net, .biz or .info domain, 5Mb Web space and two years professional hosting with PHP4 and cgi-bin, and five POP3 mailboxes hosted with your domain.

There are five runners up prizes of free .co.uk, or .org.uk domain registrations with e-mail and URL forwarding. All prizes can be used for a personal, family, company or organisation domain and Web site.

To enter, decide on a domain name, check its availability on:

www.spellings.net

then e-mail:

competitions@acornuser.com

with your details including chosen domain name and e-mail address and answer the question on page 11.

Spellings Computer Services Ltd are also offering 1Mb free Web space and six months free hosting with all domains purchased during May, including those at the Wakefield show.

To claim your free Web space, complete the order form on the main competition page, or place your order online at **www.spellings.net** stating "Acorn User Competition" in the "how did you find us" field on the order form.

Pace take a knock

Pace Micro Technology, the holders of RISC OS and Europe's biggest television set-top box maker slashed sales forecasts for the third time in six months this month sending its shares plunging.

Investors dumped the stock after Pace Micro, which makes boxes that allow standard TV sets to receive cable and digital channels, said reduced spending in the UK cable market and a slower-than-expected take-up in the United States would hit sales.

By the start of April, the stock had lost almost 90% of its value and was trading at 70p, compared to £4.80 at the start of the year, its lowest since April 1998.

Pace said the decline in sales would have a substantial impact on second-half earnings for 2002, but it still expected to make a profit for this period. But dealers said the market had little faith in this happening.

Revenue for the year ending May would be around £350 million a significant shortfall on the £500 million the market expected as cable companies spent less money. The firm's major customers include loss-making digital terrestrial service ITV Digital, debt-laden cable operators NTL and Telewest Communications and pay TV operator BSkyB.

"In particular, the UK cable market has seen a recent substantial reduction in capital expenditure," Pace said.

Telewest and NTL, wrestling with bulging debts have seen their shares slide recently while ITV Digital is in administration to try and stem its huge losses. Analysts said the warning called into question the credibility of management. "They have got cash and are not going bust but nobody is buying set top boxes and they do not have a monopoly," said one UK analyst, who declined to be named.

Pace, the world's third largest set-top box supplier behind Motorola and US-based Scientific-Atlanta, has said in the past it aimed to win 15% of the U.S. cable market over the next two years. It turned to this market as its key UK customers were finding it difficult to convince analogue television viewers to switch to digital — a situation now made worse by the ITV Digital fiasco. But in the United States, deployment had been slower than expected, said Pace.

Pace Micro added to such worries by saying a shipment of 300,000 boxes to NTL had been halted because Pace could not get credit insurance until after NTL resolved its debt problems.

"We cannot ship them and we are not prepared to take on the risk ourselves. The situation gets resolved when they can restructure their debt," Pace Chief Executive Malcolm Miller said, while warning of a shortfall in group sales and knocking almost two-thirds off Pace shares.

Pace also said first-half orders to Telewest were down 20%, and Telewest shares fell to a new record low of 11 pence.

Pace have recently "gone it alone" and released a non-subscription-based set to box to allow viewers to receive digital terrestrial broadcasts of the "free to air" channels.

www.pace.co.uk
www.pacefreetoview.co.uk

Cash on demand

RaspSoft have announced the latest version of HardCash — v5.00 2002/3. This version of the RISC OS payroll system is now compliant with all the new tax and N.I. rules for the year starting 6th April 2002.
Features are as follows:

- Weekly, Fortnightly, 4 weekly, Monthly periods.
- Calculates P.A.Y.E. and Directors.
- Vehicle Taxes, Fuel allowances including CO2 emission bands.
- Loan repayment (Good for compulsory deductions such as Council Tax).
- Full Pension calculations including stakeholder.
- Global Tax Code updates.
- Exports user defined CSV files and CSV into Apricotes Prophet.
- P35 and SC35 records and tracking.
- Cash breakdown.
- Labour can be entered as Hours & Minutes or Hours & Decimal.
- Wage slips can be standard TAS, SAGE, HARDCASH or User defined format.
- Screen layouts as standard P.A.Y.E. and N.I. documents.
- Prints out P14, P60, SC11, Employee details, I.R. monthly returns.
- Prints out Bank giro, B.A.C.S. slips, P45s.
- Prints out Pension payments, Pension details, Archive sheets.
- Built-in user guide/manual (Also 96 page printed manual).
- Browsing feature.
- Automatic backup feature.
- Automatic SMP calculations.
- Automatic SSP calculations including linkage periods.
- Time card calculator.
- Rota sheet compiler and printout.
- Working Family Tax Credit payments and claims.
- Automatic collection of student/Company loans.
- Electronic Data Interchange (EDI), end of year returns on magnetic media, (requires EDI module).
- Holiday tracking for employees with auto reminding.
- Statutory holiday tracking.
- Attachment of memo's for each employees file.
- Separate department feature allowing the subtotals for each department.
- All printouts can be viewed on screen.
- All printouts can be exported as DRAW files.
- Business mileage tracking for use with Class 1A setup.
- User defined calculations/headings.

Registered users can upgrade to version 5.00 for £30.00 and new customers can purchase the current version for £99.00 for the Advanced and £149.00 for the Professional.

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www.raspsoft.co.uk

Club news

Derbyshire Area Risc Club (DARC) May meeting on Monday, May 13th will be a question & answer session. The meeting starts at 7.30pm at the Parish Hall, St. Alkmunds Church Duffield, (just off the A6 north of Derby) Derbyshire. Tea, coffee and biscuits are available during the evening and you are welcome to come to the pub after the meeting and there is ample free car parking. Visitors welcome (£2 entrance, students £1). Meetings are free to members.

A map is available from the Web site:

www.darc-comp.org.uk

darc@aaug.net

Blackpool Computer Clubs' May meeting topic is a demo of Virtual A5000 and RISC OS Select. Contact Maureen for meeting location and time. Details at:

blackpool@aaug.net

The May meeting of the ICENI RISC OS User Group (Ipswich) will take place on the evening of Wednesday 1st May 2002, at the Co-Op Education Centre, Fore Steet, Ipswich IP4 1JW. The topic will be using different printers on **RISC OS**, possibly also with a look at the new RiscStation portable (if production versions have reached members by the meeting date). Admission for new visitors is free, and everyone is welcome. More details available at:

www.archipel.demon.co.uk/ICENI/

The May meeting of the M25E RISC OS User Group (East London and West Essex) will take place on the evening of Tuesday 21st May, at Harold Court School, Church Road, Harold Wood, RM3 0SP. The topic has yet to be confirmed, however admittance is free, there is ample free parking, and tea, coffee and biscuits are available in return for a small contribution. Visit their site at:

www.m25eroug.riscos.org.uk

The RISC OS North West User Group (RONWUG) meets on the third Wednesday evening of every month at the Trafford Metrovick Rugby and Cricket Club, Finnybank Road, Sale, Cheshire, M33 6LR (a few hundred yards from the M60 ring road). Admittance is free, there is ample free parking, and everyone is welcome. The May meeting will be 15th May 2002. For further details go to:

www.ronwug.org

The RISC OS User Group of London (ROUGOL) has no events planned in the immediate future, but welcomes enquiries from those who wish to be added to the announcements list for future meetings. More details at:

www.jellybaby.net/rougol/

The Bottisham Acorn User Group have two meetings in May. 14th May will be a general Question and Answer Session whilst 28th May sees Jack Lillingston, Managing Director of Castle Technology talking about the current range of Acorn machines, and offering a few pointers to the future.

http://come.to/baug

Robot can recognise you

Asian toy maker Bandai has created a prototype of a home entertainment robot that recognizes human faces and voices. The BN-7 can recognize people and hold conversations using its voice and ability to gesture. The robot can also express its emotions. Its face will flush with joy and turn pale with embarrassment.

The robot has wheels so it can move by itself. Eventually it will obtain information via the Internet, and even engage in teaching and other activities. The toy maker plans to bring the robot to market in about three years. It will cost about as much as a car.

BN-7 has a built-in CCD camera with 300,000 pixels, and can recognize up to seven human faces. It can listen to and identify 100 words and reply in a maximum 65,000 phrases by combining them with 1,000 words previously recorded in it. BN-7 runs on a Pentium III and uses an embedded version of the Microsoft Windows 2000 operating system.

All very well as an executive toy, but what else will these robots do when they're done with the housework and entertaining the children? At MIT's Media Lab, a professor has built a prototype robot reporter for uses in dangerous places like Afghanistan. Going back to the wheel, people have always used machines to augment human effort. And everyone's comfortable with the idea that there are a lot of dangerous and boring jobs around that can be handed off to robots.

But these new robots are pushing closer to the realm of thinking on their own. In the thinking professions, we're very comfortable when a robot replaces a manual laborer. Soon it may be possible to provide machines with the judgment and mobility that we associate with purely human capabilities, and it will be our turn to be displaced. A toy company is developing these new machines, but eventually they won't be toys.

Books by RISC OS

Learning Partners / Polemic Books, the RISC OS based publishing company are withdrawing RISC OS versions of their products when current stocks are exhausted. Remaining stocks may be purchased at a substantial discount.

Careers Workshop: PC price £85 plus VAT (£99.98) — RISC OS offer price £50 plus VAT (£58.75) — Only two remaining

British Parliamentary Constituencies on CD-Rom: PC price £50 with 10 user licence — RISC OS offer price £12.76 plus VAT (£14.99) — Only twelve remaining

Careers Workshop is written by Robert Werry (also RISC OS based) in Australia where this is the leading careers software product. The approach is a lot less formal than comparable British Software, but it is based on the same sort of research on personality, interest and career choice.

It offers good reporting and database facilities to teachers. We have had good sales to people working with young offenders and non-academic FE and sixth form provisions. The only difference between this and the PC product is that due to the more compact code this is supplied on disk with a printed manual, rather than on CD-Rom with on-line manual.

British Parliamentary Constituencies on CD-Rom is written by Tony Fox (Senior Research Fellow University College Worcester) and Professor Ivor Crewe (Professor of Politics and Vice Chancellor, Essex University). It provides data sets for the 1992, 1997 and 2001 elections and a social and economic profile of each constituency at the 1997 election.

One RISC OS user on the staff of a Welsh university said "I am impressed with the quality of the software and the extent of the data". The only difference between this and the PC product is that the updated 2001 data is supplied in HTML rather than as an Excel file. Full documentation is supplied with this product in the form of several booklets.

Prices include postage. Send a cheque or official order on headed paper with your name and address to:

Learning Partners
Marquis House
2 North Street
Winchcombe
Glos
GL54 5LH

lp.books@argonet.co.uk

Exhibitions abroad

The Big Ben Club are holding their annual RISC OS show : the RISCOS Expo 2002 The Big Ben Club is the nationwide Dutch Acorn User Group.

The show will be held on Saturday, June 22th, 2002 from 10.00 a.m. to 5.00 p.m at Expohall, Hotel Mercure, Buizerdlaan 10, Nieuwegein (near the city of Utrecht)

The location boasts excellent facilities, a restaurant, and free parking. Admission is free to members, EUR 7 to non-members.

The Show offers exhibitions/promotions by various companies, including Dutch, German and British Acorn dealers, demonstrations by club members, and so on. A theatre is also provided for demonstrations.

Participation is free of charge for dealers and publishers from the UK to minimise the costs of travelling to Holland.

www.bigbenclub.nl

www.bigbenclub.org

Web of C

A new Web site devoted to C Programming on RISC OS has been launched, under the new .info top level domain.

The Web site is still work in progress and new information is being added regularly, and submissions are welcomed.

The site hopes to cover all aspects of C programming on RISC OS, from discussion of the various compilers through to tutorials for performing specific kinds of tasks.

www.riscos.info

ARM in top 10

ARM Holdings Ltd has been listed in the FTSE top 10 of worst performing stocks for Q1 2002.

ARM stocks are down 21.5% of their value over the first quarter. ARM joins the likes of Cable & Wireless and Vodafone who have also suffered dramatic falls due the downturn in the telecoms and IT sectors.

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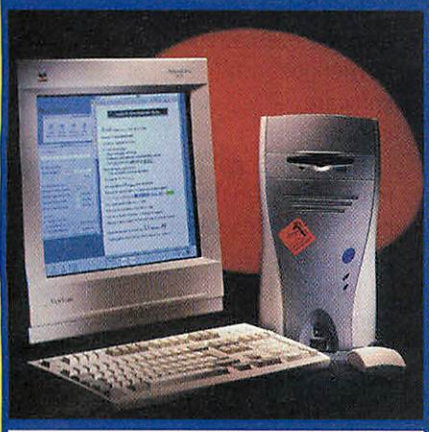

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Osaris Plus pack	£210.00
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Kinetic CD Writer (70Mb, 30Gb, CD R/W, 17")	£1505.00

Risc PC StrongARM series

Risc PC 8+0Mb, 2Gb HD	£890.00
Risc PC 16+0Mb, 4Gb HD	£948.00
Risc PC 16+2Mb, 4Gb HD, 48x CD	£1039.00
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iiyama Pro-Lite 3835 (15" LCD)	£475.25
iiyama Pro-Lite 4314 (17" LCD)	£573.00
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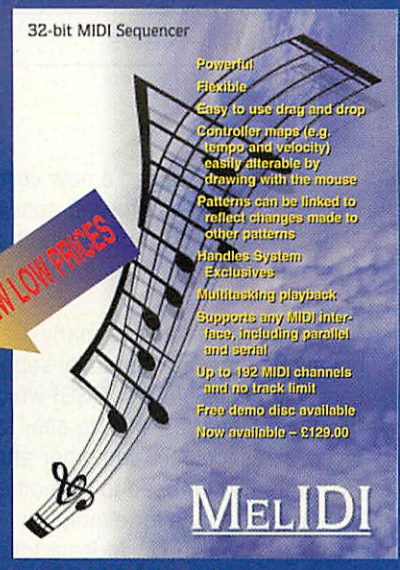

Memory Upgrades

Please call to check current prices.

Risc PC/A7000/RiscStation/Mico SIMMs:

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32Mb EDO (HC, works in Risc PCs)	£26.75
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128Mb EDO	£77.55
2Mb VRAM	£92.00

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Please call for other musical items

MIDI interfaces:

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RiscStation MIDI drivers & cable	£17.95
RiscStation XG card & cable	£116.95
RiscStation XG card, cable & keyboard	£245.95
Sibelius 6	£99.95
Sibelius 7 Student	£319.95
Sibelius 7	£520.95
Sibelius for PC/Mac is also available	
Sound module serial driver	£37.95

Other Hardware

Mouse (Genius/STD Acorn-compatible)	£19.95
Mouse (PS/2 Logitech)	£14.99
PS2MouseMini adaptor for older machines	£18.95
Printers	£Call
Risc PC second slice (no PSU)	£95.00
RISC OS 4 (fitting available)	£109.95
RiscStation second serial port	£10.95
Scanners	£Call
StrongARM & RISC OS 3.7	£269.00
StrongARM & RISC OS 4	£299.00
ViewFinder card (8Mb)	£195.00
ViewFinder card (32Mb)	£240.00

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DataPower 2	£165.00
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TechWriter Pro+	£209.95
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Better browsing

RComp have released a new version of their RISC OS Web browser software "Webster XL" to customers who have purchased their priority support and upgrades.

Version 1.99f contains many enhancements, most notably support for cascading style sheets (CSS) which are used by many Web sites to alter font faces, sizes, colours and other attributes. CSS can also be used to size other objects (text areas for example).

This new version includes a totally revised text area input "gadget" which has been designed to be much more pleasant to use with features like wordwrap, text highlighting (for copy, paste, and global clipboard operations) and easy clearing. This makes using message boards and the like much more user friendly.

RComp have expanded Bookmaker support for people using that program as a "central" hotlist between programs and support is also included for the HTML hotlist formats used by Browse and Fresco.

JavaScript, table and frame issues have also received attention as usual. You can now choose what level of JavaScript the software will attempt to execute (up to version 1.4)

The JavaScript handling has also been improved. Webster XL 1.99f opens up a number of sites which have caused problems for RISC OS users in the past.

And of course, RComp reminds us, ongoing development continues!

www.websterxl.com

Meet the portable

The Wakefield RISC OS Computer Club will have Roy Heslop as their guest speaker at their meeting in May. The meeting takes place on Wednesday May 1st 2002 and should be an interesting event. By this time, Roy should have a working RISC OS version of the new portable and will hopefully be able to demonstrate it live as a special preview to Wakefield members and any visitors before the Wakefield Show.

Doors open at around 7:15pm and the Meeting starts at 7:45pm at the usual venue of the West Yorkshire Sports & Social Club in Sandal, Wakefield. Visitors are always welcome (small fee of £1.50)

You can find more information about the meetings and how to get there on the the club web site:

www.wrocc.org.uk

stevepotts@wrocc.org.uk

The right paper for your work

Digital cameras have made the job of getting great quality photographs into RISC OS computers so easy. With Photodesk and other software, retouching, to remove those little natural blemishes, that used to be the sole territory of studio professionals, is now within the reach of most of us. When it comes to printing these masterpieces modern inkjet printers can produce excellent results, but in many cases the finished product is let down because of the paper it is printed on.

PHR Computers has the answer to this dilemma, a range of specialist inkjet papers to suit every need. All are coated to suit the inks used in modern printers and the finishes range from matt to high gloss in a range of paper weights, and to give your pictures even more impact there are watercolour and canvas textured papers and even a real canvas for those very special works of art. If your interest lies in self-decoration there are non-permanent instant tattoo kits or T-shirt printing transfer papers. For further details and prices you should contact:

PHR Computers
55 Walcot Walk, Netherton
Peterborough, PE3 9QF
Telephone: 01733 754814
preid@enterprise.net

Real adVantage

Cerilica have released details of a significant upgrade to their ground breaking graphics package Vantage. Due to be released in April, the upgrade is the culmination of six months work since the release of Vantage and will be shipped free of charge to all existing customers.

The upgrade contains many important new tools and enhancements to aid both the design and production process from deep alpha blending to SVG export.

To accompany the software upgrade, a number of new comprehensive tutorials (in the Vantage interactive Drawfile document format) will be released simultaneously along with the new original example files.

www.cerilica.com/vantage/

Special Techwriter for VA

Icon Technology have released special versions of both EasiWriter and TechWriter for Virtual Acorn. The versions come with a Microsoft Windows installer that will install them into VirtualA5000 and come with a new licence allowing their use on VirtualAcorn products. For more details please see the Icon Technology Web site at:

www.icontechnology.net

Virtual Acorn are also asking other commercial software developers who are interested in following Icon Technologys' lead and would like to be able to supply their own products in a form suitable for installation on a Windows PC with VirtualA5000 to contact them. They are offering to make Windows installers for third party products, and test the products in question on VirtualA5000, free of charge.

Liquid goes secure

Liquid Silicon are now able to take orders via a secure 128-bit SSL ordering page at their Web site **www.liquid-silicon.com**

They are continuing to offer the non-secure service for those without the 128-bit SSL support in their browsers.

Spellings Computer Services
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It knows the way you want it

The single most irritating omission from the RISC OS Filer, for some, is its inability to remember how to display a directory.

Some directories you want displayed with just their icons in alphabetic order, others might need to be Full info in date order. Both PCs and Macs can have separate settings for every directory, we can't. But SmartOpenDir, by Tony Houghton, is an "intelligent directory opener" for RISC OS 3 and 4.

It intercepts calls to open directories in Filer windows and sets the display/sort options based on patterns in the directory name and/or number of files it contains and so on.

Tony has recently updated this program and the new version, 1.20 is available from:

www.realh.co.uk/downloads/smart120.zip

While the application is not quite the one that provides independent settings for any directory, it does go long way to alleviating the problem and is, in some ways, cleverer.

Strap-on shark-repellent for surfers

SeaChange, an Australian company, is launching an electronic device that swimmers can wear to repel sharks.

The company says that Shark Shield has worked in all its tests, including those on a human. The paperback book-sized device straps on to the thigh. It trails an antenna that emits shark-repelling signals.

"I'd be in the water and when the sharks came in to attack they'd hit the electrical current and turn away," said Ian Gordon, a marine biologist who's been testing the device.

Very fishy.

Definitely in characters

Alex Waugh has announced an exciting addition to Oregano, the powerful Web Browser from Castle Technology. His explicitly but unenlighteningly titled "KOI8-R/Windows-1251 viewer" extends the character display facilities of the application.

Oregano is far ahead of any other browser on the RISC OS platform with regards to being able to display international characters, such as Japanese or Cyrillic. However, the number of character encodings (basically, a table that matches each byte (or series of bytes) with a character) it knows is limited and there is no way to expand them. This means that if you visit a Web page using an unsupported character encoding, even though Oregano could support the characters used if written in a different encoding such as Unicode, it appears as gibberish.

To deal with this problem Alex has written a PHP script, which runs in Oregano, to convert KOI8-R or Windows-1251 Web pages (common Russian character encodings) on the fly to Unicode, so that Oregano can display them — apparently, perfectly.

To run the program you need Oregano, of course, plus WebJames and PHP needed to actually run the PHP script. These last two are available from Alex's Web site:

www.alexwaugh.com/internet/

KOI8R itself is available at:

www.dracos.co.uk/riscos/programs/koi8r/

Give generously

With only a short time to go, the Wakefield 2002 Acorn RISC OS Show is nearly upon us. With this in mind, we are asking for donations to the Bring and Buy Charity stall. If you have any items that you would like to donate but are unable to bring them to the show, we are pleased to announce that goods can be sent prior to the show to the following address:

Wakefield Hospice (Fund Raising) Ltd
Hemingway House Thornes Moor
Business Park Thornes Moor Road
Wakefield WF2 8PG

Please note that The Wakefield Hospice fund-raising department can accept deliveries direct by hand between 8:30 am and 4:00 pm Monday to Friday.

Please ensure you mark the parcel:

"FOR THE ATTENTION OF TERRY RIGG – WAKEFIELD 2002 SHOW"

All donations are gratefully received, please keep them coming. Thank you.

Wall of fog creates virtual film screen

A Finnish inventor has designed a virtual movie screen made of a wall of fog. Images are projected on to the fog, which is kept in place by two fast moving streams of air on either side. Ismo Rakkolainen creates the fog wall with a one-centimeter thick layer of dry ice that he says could replace the fragile screens currently used in simulators. "You can get good effects, images just float in the air. You can touch them, but you don't feel anything," Rakkolainen said.

British "silver surfers" are rushing online

The Internet is becoming increasingly popular among British over-55s. A survey by NetValue says the population of "silver surfers" has doubled since the beginning of 2001. It says the group — about two million people — now accounts for 13% of the UK online population.

Britain now has one of the highest percentages of silver surfers, surpassed only by Sweden with 17% and Denmark with 16.3%. Banking is one of the biggest attractions for the age group. NetValue estimates that nearly a quarter of all people now e-banking are aged 50 or above.

Neil Spellings
news@acornuser.com

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Full of Far-Eastern promise

I recently received an e-mail from the intriguingly named Dragon Lee, technical representative of Draytek Corporation of HsinChu, Taiwan listing the features of their latest Draytek Vigor series of ADSL Modem/Routers. A few months ago we had a look at the Vigor USB solution, but the new Vigor 2600 TSP ADSL Modem/Router promises to be the must-have box of 2002 for the new breed of affordable-ADSL users coming into the market. This unit also contains a Samsung ARM processor, so we like it a lot already.

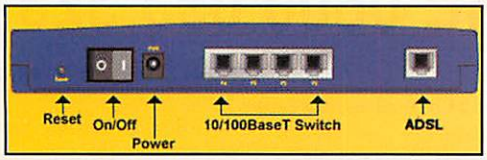
This product is designed to slot into the requirement of "Wires-only" and small-business ADSL subscribers who are going to connect two or three computers, whether Acorn, PC, Mac or Linux to a single ADSL Internet connection. Unlike most other budget-priced modems, the Vigor 2600 will contain a comprehensive hardware/software firewall, using "Stateful Packet Inspection".

This technique analyses individual data packets as they pass though the router. As well as monitoring the packet headers, SPI also assesses the packet's contents and looks at the internal application protocol. The router's SPI firewall then makes decisions on whether to pass on the data using the information it has discovered about the source, destination and service wanted by the packet.

Having made a policy decision about the specific data connection, the SPI firewall can remember the status of each stream of data, which allows more complex but flexible rules to be created than can a simple router. SPI can block unwanted or malicious streams while allowing though data from more esoteric but valid applications. The Vigor 2600 will also feature NAT port blocking by default and protection against Denial Of Service (DOS) attacks, with real-time attack alerting.

PC users have previously had problems running applications like NetMeeting and ICQ with simple NAT (Network Address Translation) routers, but the Vigor 2600 will have special facilities to allow these programs to be used transparently. Support will be included for Dynamic DNS web hosting, which regularly updates a domain name server with the currently-allocated IP address of the router, which can allow a web server on your LAN to be addressed by name even with dynamically-assigned IP addressing.

A four-port speed-sensing switch hub allows you to connect a mixture of 10Mbit/s and 100Mbit/s PCs, and it will auto-detect an uplink connection to another router which means you can still make use of that old crossover cable you bought for your first interconnection.



Even the back looks good

Add more to your elbow with another ARM

The Vigor 2600 TSP range is expected to retail at around £180 + VAT but you will have to check the SEG Web site for the latest prices. SEG have created a mailing list for interested prospective customers; details on their Web site. Shipping of the Vigor 2600 is expected from mid-April; it's March as I write this. I'd give my right ARM to try one out sooner.

Vigor 2600 TSP ADSL Modem/4 port Router

www.seg.co.uk/draytek/products/vigor2600.html

You wanted it, now .eu got it

Those mandarins in the European Union's Council of Telecommunications Ministers of the Regulation have agreed to fuel yet another domain name bonanza by implementing the European Commission's proposal to introduce another top-level Internet domain name ".eu".

This will "will create a truly European identity in cyberspace" according to the Commission. They also hope it will "lead to a higher visibility of the European 'brand' in the virtual marketplace based on the Internet". Maybe they should have gone the whole commercial hog and called it ".euro"?

As you might expect getting these decisions finalised is like swimming through treacle, so you will have to wait until "early next year" to actually register a ".eu" domain name. You can read all about the progression of the proposal made in December 2000 through to the adoption in March 2002 on Europa, The European Union On-Line Web site. Search for document IP/02/468.

European Commission Press Room

http://europa.eu.int/rapid/start/cgi/guesten.ksh

David Dade
comms@acornuser.com

In brief

Give me the facts

If you're wondering whether it's the right time to consider moving to Broadband, the OFTEL Web site has some interesting information on the BT and Kingston Communications ADSL rollout. OFTEL publishes a monthly ADSL Factsheet which shows progress in enabling exchanges and the percentage of UK households covered, as well as actual take-up from the two operators.

If you compare the latest wholesale prices shown for each product with the retail charges published by individual ISPs, you will still be confused. For instance a 12 month contract for the IPStream Home 500 service from Demon Internet will cost you £28.99 inc VAT per month with a £50 connection charge, while Pipex Internet only charge £23.44 in VAT with no connection charge for their first 40,000 customers.

The OFTEL ADSL Factsheet also briefly explains the technology and history of ADSL. You can find reports of OFTEL investigations into allegations of anti-competitive behaviour, including their own investigative coverage of the most recent BT Wholesale price cuts which may antagonise other Local Loop Unbundling operators.

Oftel ADSL Factsheet

www.oftel.gov.uk/publications/local_loop/adslsheet/

One and One makes 4.99

Slough in West London is the UK headquarters of 1&1 Webhosting, a telecommunications company founded 12 years ago in Germany. After operating a Teletext-like online service to German consumers, 1&1 started hosting services in 1995 and reckon they now have a commanding position in the European Web hosting market.

Their Home hosting package costs £4.99 ex. VAT per month and offers 100Mb Web space and 50 POP3 e-mail accounts with e-mail aliasing to allow up to 200 addresses to be created. Bells and whistles include catch-all e-mail forwarding and unknown address capture, Web-based e-mail access, graphical site statistics and their online WebsiteCreator feature.

This is a browser-based system that I haven't tested with RISC OS browsers, and other software supplied with the package is definitely PC only and will cost another £3.49 + VAT for shipping. You may want to register a domain name for 1&1 to host, which will cost £2.89 a year for a co.uk/org.uk domain name and £8.99 a year for .com/.org, all ex. VAT. All settings are configured using a secure Web-based control panel, and 1&1 offer a 60 day trial money-back guarantee.

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Graphics Resources on the Internet

Graphics is one area where RISC OS excels. Users also benefit by the fact that many graphics resources and utilities can be freely downloaded from the Internet. There are roughly three main areas of interest to users; image viewers, converters and general purpose utilities.

Of the image viewers available, perhaps the two most widely known are ChangeFSI and Translatr. ChangeFSI was written by Acorn and is supplied with each computer. Although it can be slow at times, it will allow you to view most types of image file that other users may send you, such as JPEGs and GIFs. Later versions will also read PNG images, which are starting to become popular on Web sites as an alternative to the copyright GIF format.

Newer versions of ChangeFSI are available from RISCOS Ltd (www.riscos.com).

Translatr is Shareware, and written by John Kortink, who also happens to be the inventor of the superb ViewFinder graphics cards — so he knows a thing or two about graphic formats.

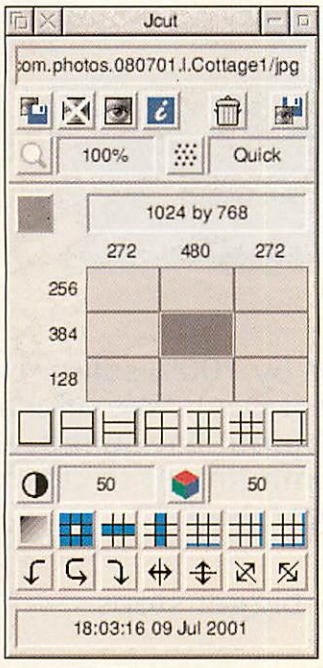
As well as viewing a multitude of different graphics formats, Translatr will also convert to different formats, and offers more choice than ChangeFSI — which will only save in JPEG and Sprite formats.

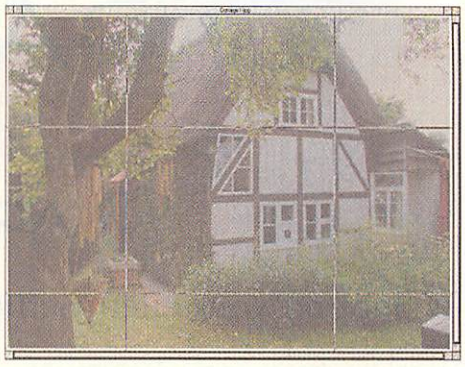
Translatr will let you convert to a number of popular graphics formats including the creation of interlaced GIF and PNG images. Like ChangeFSI it also boasts an impressive range of processing and effects options.

Dacha's Domain

The next 'must stop' location on the Web must be the JPEG utilities section of Dacha's Web site at **www.dacha.freeuk.com/free/**

Ideal for Web designers, digital photographers and anyone who handles JPEG images, this collection of utilities are invaluable.





An image ready for cropping by JCut and the same image with the contrast altered by JClean

Jack is a utility for repairing broken JPEG images or extracting JPEGs from within other files. This will be most useful where the JPEG has come from a PC or a digital camera that adds additional 'garbage' at the beginning of the file. Jack can also repair broken headers or encryption that some PC software adds in order to prevent unauthorised viewing of the images.

Jcut will give you the facility to cut, paste, crop, rotate and flip JPEG images, but without any degradation that would occur from re-encoding the processed image, due to JPEGs losing some of the original quality each time you encode them. The latest version of Jcut even allows you to alter the contrast and colour adjustment of the original image.

Jess is another utility for extracting JPEG images from other files, but unlike Jack is capable of scanning its way through a large file and extracting multiple images from a single source file. The most common source of single-file, multiple JPEG images is in Windows screensavers and PowerPoint presentations — neither of which have RISC OS versions available. Jess will provide the next best thing, if you need to extract all those JPEG images from a PowerPoint presentation, in order to view them under RISC OS — and possibly even re-display them using Photodesk Ltd's own presentation tool, OHP.

Jsize is a simple little utility which will provide information about JPEG files.

One of the most useful of Dacha's JPEG suite of utilities is JClean, which allows RISC OS users to add/remove comments from JPEG images and also create progressive JPEGs, which speed up viewing time on Web pages, letting you see the image gradually build up as it is downloaded. I find this utility essential in itself and far easier and more flexible than anything I've found on either the Windows or Mac OS platforms. Indeed, every photo on my friend's photo gallery Web site at **http://home.clara.net/lucypringle/photos/** was pre-processed using JClean.

GIFs Galore!

Another essential utility is InterGIF from Fresco author Peter Hartley. Available from **http://utter.chaos.org.uk/~pdh/software/intergif.htm**

This is the first, and still the best, GIF encoder for RISC OS and as such has pretty much become the definitive tool for creating GIF images from Sprite files. Not only can it do a straightforward conversion from a RISC OS sprite file to create a GIF image, but it can also take a file containing multiple sprite images and turn them into an animated GIF image.

As a bonus it will also convert Draw files into GIF images for you, which make it ideal for putting diagrams and other sketches on Web pages. An additional feature of InterGIF is the ability to convert RISC OS colour palettes into 'net safe' versions, so that your images will still view with the correct colours on Windows machines which can only cope with 216 colours (instead of 256 colours) on Web sites.

Other goodies

No look at graphics resources would be complete without mentioning Rob Davison's Variations, available from **http://compo.iconbar.com/variation.htm**. I mentioned this in full in the PD column, but it's one of the best utilities I've yet seen which gives you an interactive and comparative view of various effects applied to your image. It seems to be under continuous development too, so do check Rob's web site periodically.

Another useful stopping point is Rosemary Miskin's Web site at **www.argonet.co.uk/users/miskin/** which contains a number of Draw utilities as well as graphics ones. Two worthy of mention are SplitDraw, which can split large Draw files into manageable pages so that you can conveniently print them out. This is ideal when you've saved a large Web page as a Draw file and want to print it out using your A4 printer.

Next is DrawLots which will create a huge variety of geometric shapes and curves as Draw files for you. This helps enormously if you want to create regular (even even irregular) shapes for use in diagrams or desktop publishing.

Michael Stubbs
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Variations on a theme...

Variations is the latest release from Compo author Rob Davison and, as one would expect, is a high quality graphics utility application. The amazing thing is though, that Rob has released it as freeware so you can grab a copy gratis from his Web site at

http://compo.iconbar.com/variation.htm

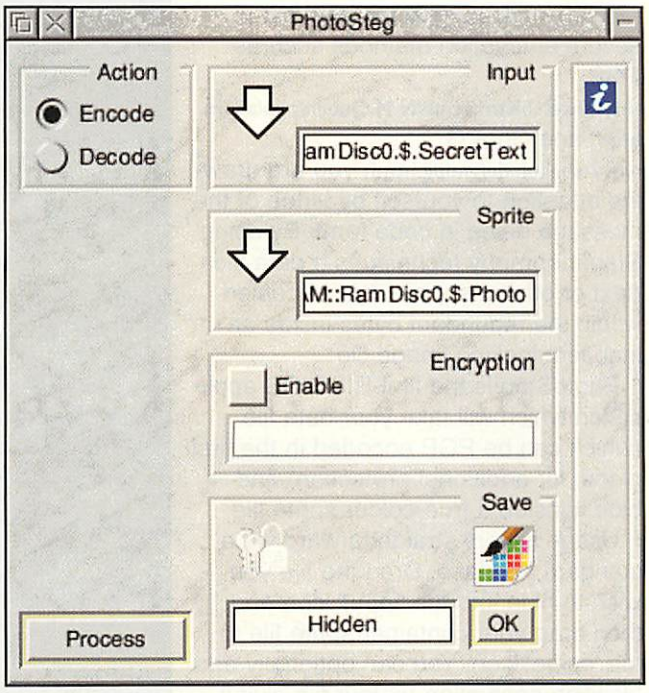
I can honestly say that this is one of the best software releases of the year, and the fact it's freeware makes it even more impressive, or shows the generosity of some RISC OS developers.

Put simply, it's a graphics effects processor that can perform a variety of image processing functions on any JPEG image or 16 million colour sprite dragged to its icon. What makes it different though is that you are presented with a grid of miniature thumbnail versions of your original image, each with a graduated effect applied to them, thus instantly showing various levels of the current effect. Simply click on one of the thumbnails and that one will become the focus of attention, and all the surrounding ones will then become variations (ged-dit?) of the new one.

Although there are lots of powerful, and weird, effects, even novice users will find Variations easy to use with its straightforward and intuitive user interface.

Effects include Hue, Gamma correction, fade, sharpness, saturation, contrast, shape, emboss, brightness, sepia/tint and borders, each with a step size which can be varied by the user by sliding a graphical bar up and down.

Each thumbnail can be any size you require. Just by dragging the main window to the chosen size, each thumbnail will automatically redraw itself so that its relative to the size of the main window.



Adjusting the saturation of an image using Variations

Variations is designed to run in a high colour mode so is only really of use to people with more than 256 colour screen modes. However, it will be invaluable to Web designers, graphic artists, anyone with a digital camera and just about everyone who likes playing around with their images.

Once you're happy with the effect you have on screen, you can resave the new image as a sprite or JPEG. The beauty of Variations is that you can immediately see the effect of different intensities of effect, which can allow you to quickly and effectively find the right effect to enhance your image.

Although the version I examined is quite an early one and a number of effects are currently unavailable, the sheer range and scope of the program rivals a number of commercial offerings I've seen, making this a must have application. Well done Rob!

PhotoSteg

People who know me will be aware of my campaigning for free speech, online privacy and widespread use of strong encryption. PhotoSteg is another application which will enable RISC OS users to swap confidential data files, not only secure from prying eyes and the reach of Echelon - the covert e-mail filtering system set up by the government, but also cunningly concealed

within innocent looking photographic images.

Some critics argue that by using secure encryption methods such as PGP (**http://web.bham.ac.uk/N.M.Queen/pgp/acorn.html**) and GnuPG (**www.sbellon.de/gnupg.html**) you are drawing attention to yourself by virtue of the message being in code form. By using Steganography techniques a data file (text or otherwise) can be concealed within the redundant bytes inside an innocent-looking image file.

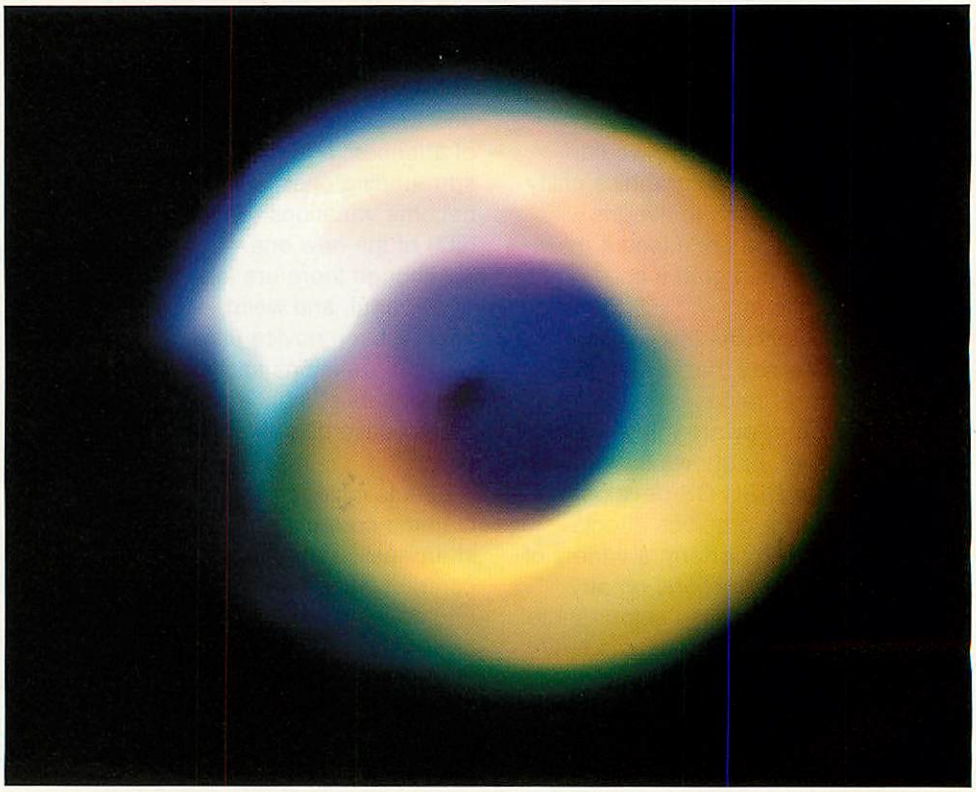
PhotoSteg is the first RISC OS application which will take your data file (which can be PGP encoded in the first place, for additional protection) and hide it inside a true-colour sprite file.

Usage is very straightforward via a standard interface. Drag the file you wish to hide into the 'input' icon and then drag your container sprite file to the 'sprite' icon. You can optionally add blowfish encryption to your file giving even further security. Then drag the 'hidden' spritefile to a Filer window to create your final image file containing your secret file.

This can then be e-mailed to other RISC OS users who can subsequently extract the original file by reversing the process on their own copy of PhotoSteg.

It's a pity that the current version cannot embed data into standard JPEG images, as you could then swap secret data with users of other operating systems, but I may have a go at porting OutGuess 2 to RISC OS if I get enough spare time.

PhotoSteg is written by David Thompson and can be downloaded from his Web site at **http://web.ukonline.co.uk/david.thomson/riscos/software.html**



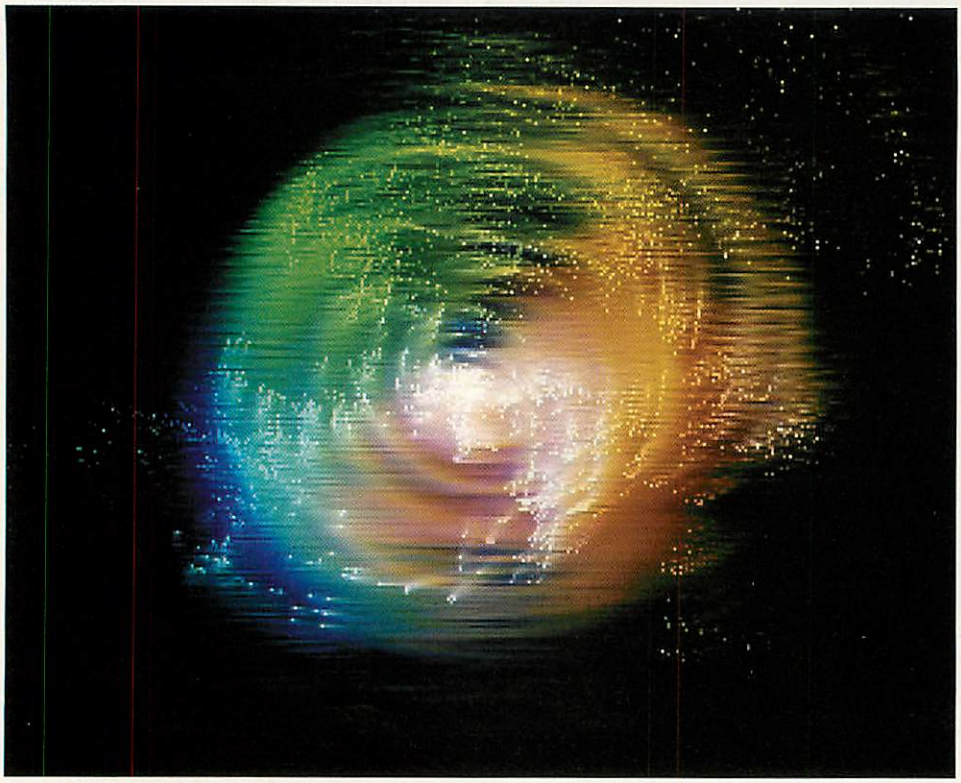
Delirium

Delirium is, quite simply, the best graphical effects screensaver I've yet seen on RISC OS computers. Development had been on hold for the past year, but a new version has just been released, at a new location of **www.kulture.org.uk**

It requires a high spec computer, so don't try running it on anything less than an A7000 (and even then some of the effects are likely to be sluggish). However, give it a StrongARM Risc PC and the effects will impress even your PC-owning friends.

Even though RISC OS 4 has a built-in screen saver, it's a pale comparison to the graphical wonder of Delirium. Indeed, the screenshots here can hardly do it justice as the effects fade and swirl around the screen. Highly configurable and featuring password protection if you require it, Delirium is fully multi-tasking, which allows the computer to continue processing once the effects switch on after a user selectable delay of not using the keyboard or mouse.

Delirium has been mainly developed by Joe Oldak, with help from some friends. For that reason, Delirium allows third-party plug-in savers — and there are a number of additional ones provided on the Web site. Programmers are encouraged to add their own so, ilf you do create any effective ones, I'm sure Joe will be only too pleased to hear from you.



A 'blurcl' and (above right) a 'star'. Images created using Delirium

Paul Vigay
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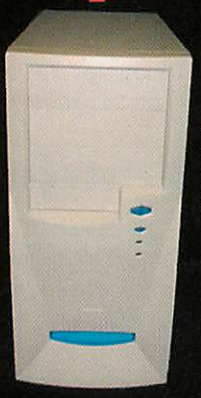

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ArtWorks and beyond

This is not only the title of this article but also the title of a theatre presentation I will be giving at the Wakefield 2002 Show on the 18/19 May. In contrast to that presentation, which will include a demonstration of the key features of ArtWorks, this article does not focus on the features of this well-known application.

Instead, I would like to tell you the story of its development, a story that started 1991 and is still continuing today: New features and bug-fixes for ArtWorks are released almost every fortnight. As I am typing this, the latest major addition, the Crystal module, which finally adds transparency to the program, is just in its final beta testing stages and is about to be released to the public.

ArtWorks—The history

Just a couple of years ago I would not have dreamt of ever giving a theatre presentation at a major RISC OS show. I well remember the time when I stood at the back and watched presentations by Computer Concepts (CC for short) demonstrating their flagship programs Impression and ArtWorks.

My first encounter with ArtWorks was 1991 in Dortmund, Germany, which was also the first major exhibition I attended as an exhibitor: Guido Klein and other German dealers had invited me to be on their stand at the HobbyTronic Show and demonstrate the MouseRecorder, my first commercial application for RISC OS.

In those days, being at a computer exhibition meant meeting Gordon Taylor, marketing manager of CC. Although he has not been seen at exhibitions for several years, I still remember him well, as will many Acorn enthusiasts. My software developments, most importantly those related to ArtWorks, owe a lot to his enthusiasm and support. Gordon was with us on the stand at Dortmund, busy demonstrating Impression and, in a quiet moment, he showed me a very early version of ArtWorks.

As most people who saw ArtWorks for the first time, I was very excited: Radial and linear fills, dynamic blends, envelopes, on-screen anti-aliasing at an incredible speed—faster than CorelDraw on the fastest PC that was available at the time. This had to be the most exciting piece of RISC OS software.

However, again as most people, I then had to have a lot of patience. While CC showed off ArtWorks at exhibitions (the first official demonstration I saw was at the Acorn User Show 1991 and all I remember is that I was very impressed but that it crashed very often) and handed out leaflets to people, the announced release date kept changing (as rumours have it, this is a situation not entirely unheard of even today).

Apparently, the task of writing a fully stable application of such a huge size entirely in ARM code turned out to be more complex than initially reckoned. CC decided to cut some of the planned features, for example an integrated, fully featured sprite editor and some other goodies like being able to directly edit text flowing around a curve.

A star is born

Even so, the public still had to wait until autumn 1992 for the first release version of ArtWorks. Together with Thomas Goseberg (of Formulix fame) I bought one of the first two copies that were sold at that year's Acorn User Show: We just could not wait, so we went to the CC stand while everyone was still setting up their stands on the day before the show opened.

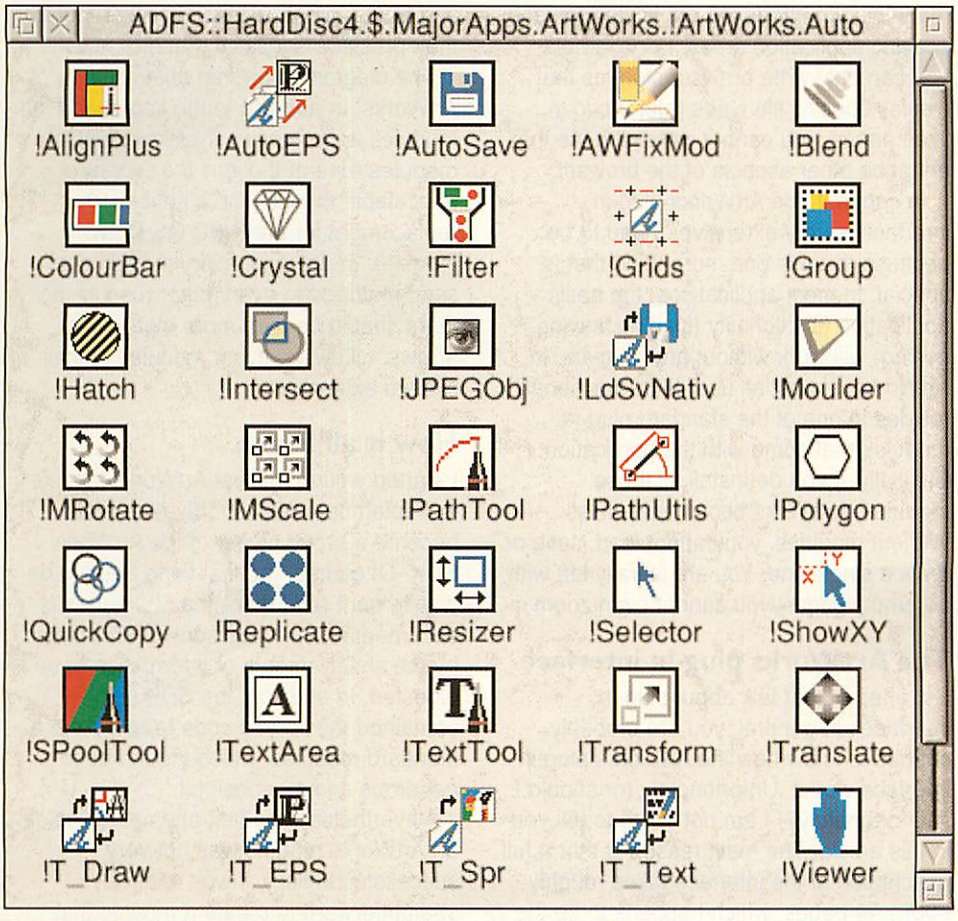
Considering the fact that they had only started developing the main ArtWorks application in February 1991, the first public release in 1992 was still a major achievement, even though version 1.00 could not exactly be called the most stable of applications. Every application, and an application with the ambitious aim to be the ultimate graphics design solution for RISC OS, is bound to have its problems.

So it was only natural that soon after I had started using ArtWorks I wrote a fax to Gordon Taylor reporting bugs and requesting additional features. Several faxes followed, but while most of the bugs were ironed out in release 1.1, nobody seemed to pay attention to my requests for new features.

For example, one of the first things that annoyed me was the fact that text lines could not be aligned and distributed properly. You could align and distribute the top, bottom and centre of objects but as soon as only some of the text lines had ascenders or descenders you could not create evenly spaced paragraphs using the alignment feature.

I thought that it should have been relatively easy to modify the alignment routines to take the base line of text objects into account but, alas, this was never changed. Not surprisingly, this is one of the features I later added myself (in AlignPlus, 1997).

Admittedly, some of my other



The complete selection of plug-in modules available for ArtWorks

suggestions would have been a lot more costly to implement: For example, I only had a monochrome 300dpi laser printer at that time, which did not print grey scales too well. If, for instance, I wanted to allow the bars in a bar chart to be mapped to the legend, I had no choice but to use different colours. When printed, these resulted in halftoned grey scales, which, apart from looking ugly, also made photocopying difficult.

I asked whether we could have hatching and vector fill patterns in ArtWorks. Again, CC never took up the idea. I guess that they wanted to put more emphasis on the full-colour features and commercial colour printing, so probably this was not a priority for them. However, the overwhelming success of my Hatch module, which was first released in 1997 and which adds exactly those features, shows that I was not alone in wanting them.

ArtWorks and its modules

Fortunately, users were not confined to waiting for CC to add new features to ArtWorks because of the very clever way in which it had been designed: It is a modular program. To understand what this means, I invite you to join me on a short excursion into the world of software engineering (I spent two and a half years working for a software engineering research institute, so I just cannot resist).

Modularity is a standard engineering paradigm that is commonly used when designing large hardware or software systems. It basically means that the overall system is decomposed into modules — independent parts that are as self-contained as possible and that communicate through well-defined interfaces only. This makes it easy to develop and test each module in isolation, increases the potential for parallel development and finally leads to a more robust system that can more quickly be adapted to future requirements.

As I wrote above, modularity had been common practice for quite some time, so what was so special about it in ArtWorks? The answer is that ArtWorks was the first RISC OS application to make its modularity available to the outside world. What does this mean?

Normally, one is not able to tell from the outside whether an application is modular because in order to create the final program, the individual modules are irrevocably linked together by the developer at build-time. All the end-user gets to see is the final !RunImage file.

ArtWorks is different in that its modules are linked together at run-time, that is, each time when it starts up. This property actually means that ArtWorks is component-based, a far more advanced development paradigm, which became very popular in the software engineering scene only a couple of years ago. In that sense, ArtWorks was far ahead of its time.

Of course, all this software engineering is going on behind the scenes and is not normally of interest to the user. However, having now returned from our excursion, you will see in a moment that there is a genuine, tangible benefit: For what this all means in practical terms is that anybody with the knowledge of the module interface can write an additional module, install it into ArtWorks (in the famous Auto directory) and the module is automatically integrated into the application when it starts up.

This all happens without the need to know the main program's source code and, most importantly, without the need to change it in any way! Contrast this with traditional software development where full source code access is required to add more features to an application.

Plug-in interfaces

ArtWorks is not the only application with a plug-in interface. Web browsers spring to mind, both for RISC OS (Fresco, Browse, and so on) and for other platforms (Netscape and Internet Explorer). However, many plug-in interfaces are limited to very specific application areas. For example, you can only write browser plug-ins that display specific file types referenced in Web pages, you cannot write plug-ins that enhance other aspects of the browser.

In contrast, the ArtWorks plug-in interface is very extensive. It had to be because there is one more thing that is special: In most applications, the basic application functionality (loading, saving, editing) will work without any plug-ins. In ArtWorks, almost all user-level functionality resides in one of the standard plug-in modules that come with the application. Basically, if you de-install all those modules, ArtWorks becomes useless: Without modules, you cannot load, save or draw a single line. You are literally left with an empty page—you cannot even zoom in!

The ArtWorks plug-in interface

So, after all that talk about plug-in interfaces in general, you are probably curious to know how the ArtWorks plug-in interface works. Unfortunately (or should I say fortunately?) I am not going to tell you in this article. The main reason is that a full description of the interface takes roughly 500(!) A4 pages, which happens to be the amount of documentation that comes with the ArtWorks Software Development Kit (SDK).

However, in a nutshell, there are two ways in which a module interacts with the rest of the application: Methods, which are messages that a module receives from the ArtWorks kernel or from other modules and Utils, which are routines in the kernel that a module can call. In RISC OS programming terms Methods roughly correspond to Service Calls and Utils correspond to SWI calls.

There is a total of about 120 different Methods and about 850 Utils that a module can make use of. In essence, this means that writing an ArtWorks module is like programming for an entirely new operating system: There are new events to respond to and new "system" calls to use. There are also new data structures to understand, most notably the structure of an ArtWorks document. For example, there are dozens of Utils just to traverse the objects in a document and manipulate them, not to speak of Utils for advanced features such as Undo and memory management.

This overall complexity was probably the reason why so few developers succeeded in writing ArtWorks modules: Apart from the modules by CC (including the free Splatter tool) and my own 23 modules, only three modules have ever been released: Mirko Raner, another German, wrote the first third-party modules Arranger and Precision, and Eesox produced the Pressure tool for their pressure-sensitive graphics tablet.

The diagram shows an abstract view of ArtWorks. In addition to the kernel and the modules it also shows system extension modules (one of those is the GDraw relocatable module, CC's enhanced replacement for the RISC OS Draw module). In practice, every module can send methods to every other module, so there should be a lot more method call arrows. Likewise, every module can call system extensions.

How it all began

I started writing my first ArtWorks module in September 1993, shortly after I had become a proud owner of the ArtWorks SDK. Of course, the first thing I had to do was to print (and read) the 500 pages of documentation—I was soon overwhelmed by the sheer amount of information to be digested. In addition, the SDK also contained the source code to most of the standard modules, which I found quite generous and most helpful.

Nevertheless, my first attempt at writing an ArtWorks module was not very successful. Initially, it was relatively straightforward to create a module that

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added a new tool to the Tool Box and displayed its tool-specific Info Bar when selected. Then, however, I hit a serious problem: All the icons in the Info Bar, even the text labels, had a white background, which looked rather silly.

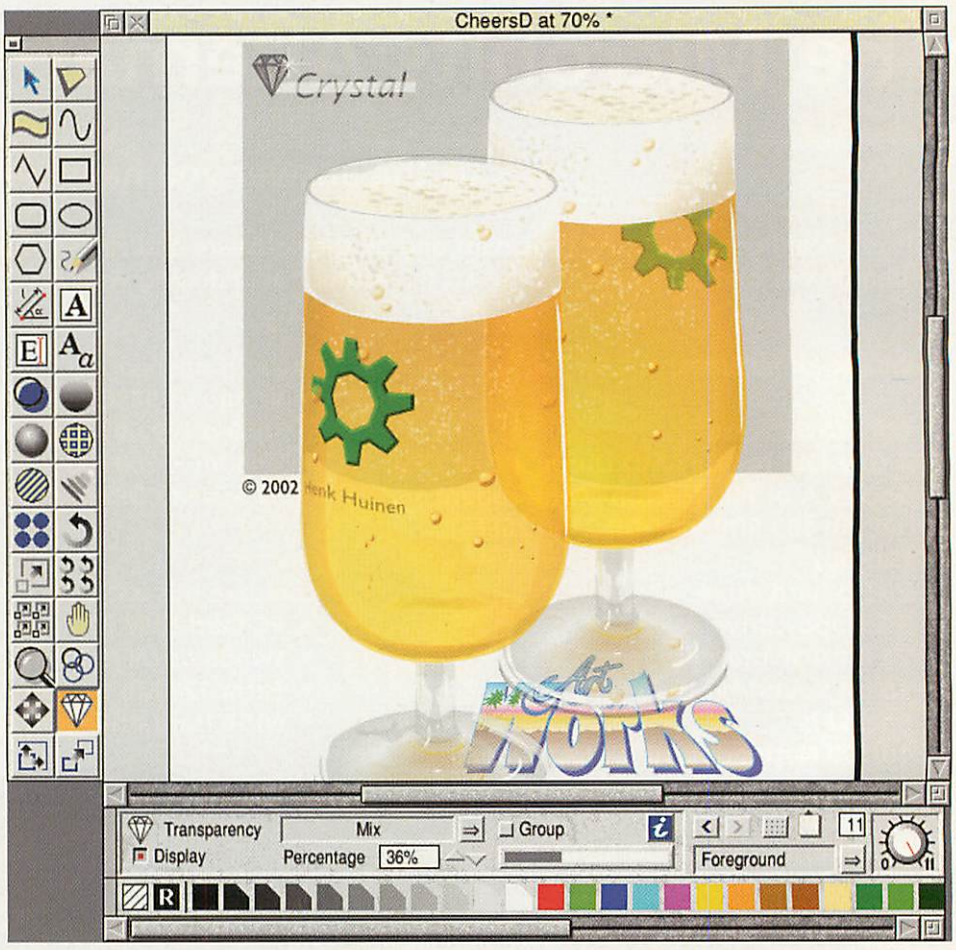
Try what I might, the problem would not go away. At the Acorn World Show I then showed my first attempt to a CC employee. He was delighted to see a module being developed, but he had no idea what could be causing my problem. As the problem could not be resolved, I decided to stop wasting my time on ArtWorks modules and forgot about them for a while.

This "while" eventually turned out to be three years! During this time I was busy studying computer science (at the Universität Stuttgart and at Edinburgh University) and most of my programming time was devoted to developing HolyBible in conjunction with ExpLAN Computers.

By the time I finally started developing my first working module, CC had already released their successor to ArtWorks that would run on Windows PCs only. Xara Studio, as it was called, was much more powerful than ArtWorks, most notably it offered transparency (as it happens it offered the very types Mix, Stained glass and Bleach that you can now find in the first version of the Crystal module).

One feature caught my eyes in particular, and that was Xara Studio's ability to draw regular polygons and stars. I thought that this was a nice feature that ArtWorks should have too, so in September 1996, I dug out the old source code and had another go at solving the problem that had stopped my initial attempts three years before. I finally discovered that the problem was caused by a bug in ABIEdit, the CC template editor, which was part of the SDK and I found a work-around that I am still using to this day.

Having mastered this hurdle, the development of the Polygon module went relatively smoothly, and I released it as shareware in October 1996. In those days, releasing software meant submitting it to the HENSA FTP server. Very soon, Polygon became the most popular download of the Acorn section for quite some time. I expected lots of Shareware registrations, but the number was very low. So, I developed Intersect (shape clipping) and released it to registered users of Polygon only, which boosted registrations significantly. Later modules like AlignPlus, MRotate, MScale, Filter, Hatch (dynamic hatching and pattern fills) and Replicate (dynamic replications) were then released as commercial software followed by another attempt at ShareWare (QuickCopy, AutoSave and ZoomPlus).



A superb picture by Henk Heinen demonstrating the capabilities of the new transparency module

By that time, I had graduated and got a position at a software engineering research institute. Despite my full-time job, I developed HatchPro (user-defined pattern fills), and started work on BMExport (Sprite/GIF export), but in November 1998, I had to stop developing ArtWorks modules due to lack of time.

This situation did not change until July 2000, when I decided to leave the institute and become a self-employed software developer. The release of BMExport shortly afterwards marked my return to the RISC OS market. It sold surprisingly well, so it was followed by the Grids module (isometric and circular grids).

In mid-September, I decided that it was time for the most ambitious project for ArtWorks, for a module I had always wanted to write: A fully-featured text area module with rotatable multi-column text frames. This development was a real challenge because due to its complexity, I wrote substantial parts of the module in C instead of using pure ARM code and designing the interaction between the ARM-coded base module and the C parts proved to be very tricky.

After two months of full-time development work, I was proud to release the most sophisticated ArtWorks module ever written: With TextArea, the text handling capabilities of ArtWorks are far beyond those of any other graphics program under RISC OS, surpassed only by dedicated word processors and DTP programs.

By that time, I decided that I would also try and fix any existing ArtWorks bug because it became clear that nobody else would do it and that my success was dependent on the overall quality of ArtWorks, not only of that of my modules.

So I released bug-fixed versions of various standard modules and I took some time to analyze and fix GDraw to allow it to work in large screen modes provided by the ViewFinder card. As time went by, I seized control of other parts of ArtWorks as well, but the kernel, the very heart of the application, remained a largely unknown area. It was only recently that I decided to finally tackle it. The result of this work is Crystal, the ArtWorks transparency module. This only works because Crystal actually replaces parts of the kernel with its own routines. Having control over the kernel opens up a whole new world of opportunities for new modules in the future. So, the long story of ArtWorks development is far from being finished.

Martin Wuerthner
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A Basic Font Set

How many fonts have you got loaded into your Fonts Directory? Perhaps, more importantly, how many fonts do you normally reckon on using reasonably regularly? I have been adding fonts to my font manager for years, its partition was getting huge and the list of fonts displayed was getting ridiculously long.

So I decided to rationalise, based on having a permanently loaded set of fonts and CD's to support them. The choice was based on which fonts I could remember using from time to time over the last few years.

Read a book on typography and it will probably recommend that you never use more than two fonts per page. Yet when I bought Office 95, it came with a fonts folder containing 44 fonts. Office 2000 now comes with 158 fonts and Serif Draw Plus 6 comes with 417 fonts. Using the above rule, you could type more than 200 pages in Page Plus before you had to repeat any fonts, and some documents look as if the author has done just that.

But is this a realistic approach? Of course it isn't. After all, Times New Roman is the default font in Microsoft Word, so why ever change? We managed fine on a typewriter with just Courier, so why not just enjoy having a more professional looking default font and save those extra mouse clicks?

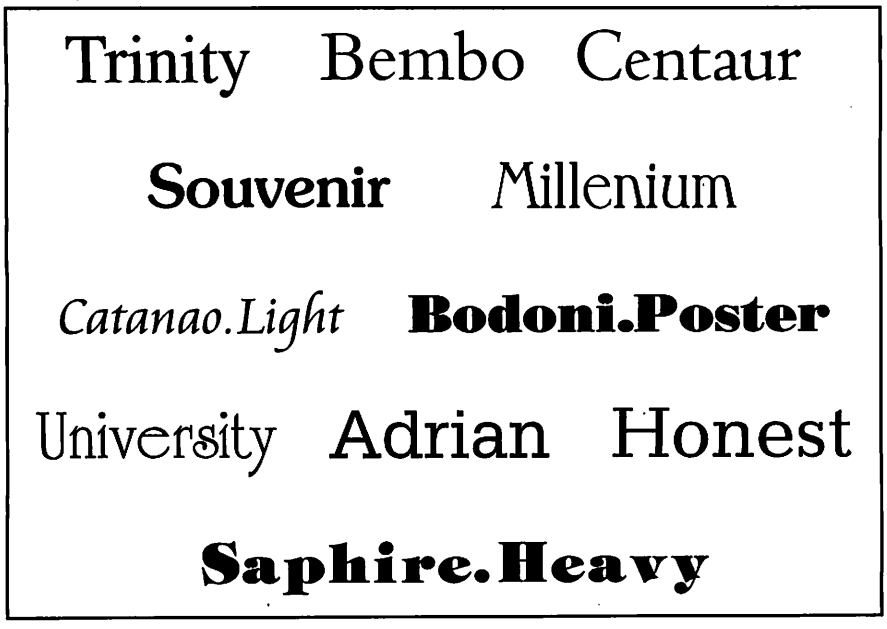
We all have different attitudes to the use of fonts. Even those of us who stick to one main font tend to change from time to time. Looking back, I find that two years ago I was using Lucida Casual most of the time, and before that it was Souvenir, But now I frequently use Optima. In a year's time, what will it be?

I read of one font designer who always gave his fonts a name starting with the letter A, because he found that the list of font names displayed in a drop down menu always required the use of the scroll bar unless the font you wanted was near the start of the alphabetical list. So he reasoned that his would see more frequent use if they were in that portion of the menu that appeared first.

This also suggests that there are benefits to keeping your list of active fonts short! Hence the attraction of a font manager that allows you to have a small selection of "always loaded" fonts but also lets you select additional fonts for short term, instant use.

So let us look at how we can put together a modest sized font directory which has a bit of something for every occasion, but does not need a vast array of sample files to draw our attention to the fact that the one we have just chosen is really inappropriate for what we are about to type.

To start off with, have you noticed the howler in the second paragraph. Yes, I've used the word "Font" in two different ways. The rule about no more than two per page refers to no more than two Font Families. For example, I often use Bodoni as a display font when using Optima as a text font.



However, the software mentioned above comes with the given number of actual fonts, where the word "Font" is used to denote a single weight, width and slope within a family. In this sense, Bodoni Italic and Bodoni Poster are two separate fonts within the Bodoni family. Throughout this document, the word Font is normally to be interpreted as meaning Font Family.

Setting the Scene

One of the problems of this sort of exercise is that everyone's needs are different. Some people just want to type letters, while others wish to prepare fliers, newsletters, instruction manuals and a host of other types of document, each with a different typographical requirement.

In this description of my selection, I am going to need to classify different fonts in some more discrete way than the old printer who had three different typefaces, one for text, one for posters and one for jobbing. I am, therefore, going to split them up into the usual groups, Serif, Sans Serif, Script, Display, Blackletter, and so on, and then put together a suggested set of fonts from each group, after discussing the principle uses of that group.

I do not intend to go into the detail of how these groups can be further broken down into sub-groups—there are plenty of books that do that well. I will also be omitting certain groups, such as Eastern, Digital, Grunge and Western. While these are valid groups which some people may use frequently, my aim is to put together a basic font collection, not to guide the specialist.

Clearly, having set myself the task of choosing a selection from a number of different groups of font types, I am going to end up with what some people would think of as a moderately large collection. Well, it turned out that I selected 44 font families, which I think is reasonable if you have a font manager that can give you a small default list and the rest available on demand.

A word of warning about font names. Spurred on by the great American desire to avoid licence fees, re-naming of fonts is rife. I have the font Fette Fractur under 18 different names, 16 of them being otherwise identical True Type format fonts. As a result of this, I will be using the name that is most familiar to me. You may already have some of my recommended fonts under different names, so don't despair if very few of my names correspond with yours. Look at the examples given, and try to find a match. Even if this is not possible, you may have something very similar. The emphasis should not be on finding exactly the same set of fonts, but on using the ones chosen as a guide to

making your own selection of a set that suits you.

Many of the fonts chosen are from standard Acorn sources, such as iSV and EFF. Others are PC fonts that have been translated using the True Type Translator from EFF or the T1ToFont conversion utility that comes in the RISC OS Accessories folder. Whichever is the case, the list of selected fonts in the appendix also gives a complete list of sources. Where the fonts are ones that I have generated myself, a floppy disc in the post will see a copy on its way to you.

In Robin Williams' Design Workshop book, she contrasts the informal look of Clearface with the more sophisticated look of Galliard. Yes, I can see what she means, but, turning to an early edition of the manual for a PC presentation program called Bravo, there is a whole page of suggested images conveyed by different fonts.

If we take this approach, our list of suggested fonts will be never ending. So we will have perhaps six fonts from each main group to give a good basic font selection, which can be built upon as the individual user finds the need arises. One of the first books that I read on the subject of Typography advocated that newcomers to the subject should stick to a small selection of about half a dozen fonts, in each of which were a number of weights, and learn to use them well before expanding the number. Well, my target may be a little up on that starting point, but let's try it.

Optima Homerton.Light

Benguiat.Gothic Coliseo

ComicSans Tempus.Sans

Several times in the ensuing text I will be using the description "Display Font." So what does it mean? Well, it covers a whole range of typographic uses, from posters to book titles and chapter headings. There is a general rule that if you are typing at 16 point or less, you are typing text, and if you are typing at 20 point or more you should be using a display font. Don't ask me where 18 point fits in that definition. The distinction is useful because graphic design guidelines suggest that there ought to be a strong contrast between such items as text and display; for example, my frequent use of Optima and Bodoni.Poster—one of my favourite combinations.

Also, don't be confused by the use of the word display to describe the use of a font and a font group. A font from the Display group will mostly be used for display purposes, whereas fonts from other groups can sometimes be used for display purposes, particularly if the heavier weights are used at large point size.

At this point most typographers would expect me to start discussing the standard text fonts, leaving the confusing mass of display fonts to a future edition of this document, which, hopefully, will never get written. Yes, I will be looking at the serif and sans serif fonts first, not from any question of priority, but just to get them out of the way before I tackle the more interesting groups of fonts.

Serif Fonts

Is there anyone who has never heard of Times New Roman, or to give it its Acorn name, Trinity? It is said to be the most widely used book font of the twentieth century, so why ignore it? It comes free.

Yes, serif fonts are the main text font in the UK. But they are widely used in other areas as well. Look at any newspaper advert or almost any other printed matter and you will see serif fonts being used at large points sizes as well as for blocks of text. So stick a version of Times New Roman on the list.

However, I think that a lighter font looks cleaner and more attractive for text use, and prefer Bembo or Centaur. For informal use I would choose Souvenir, and for use where startling quirks are appropriate, Saphire (ITC Tiffany).

Another favourite of mine, for situations where an italic could be appropriate, is Cataneo.Light. This has a set of lower case letters that are more script-like than a normal italic.

Since I so often use Bodoni.Poster as a display font, I will have to include Bodoni, but the text weights should be used with care. One of the new, large x-height, serifs that I use for more sophisticated titling is Millenium, but University is perhaps more generally appropriate.

I would gladly leave slab serifs off my list, but if you must have one, Adrian from EFF is my least unloved, with Honest, from the same source, close behind. This latter is unusual in having some contrast in stroke width associated with a reasonably thick slab. Corpus ought to be buried.

Sans Serif Fonts

Helvetica has taken a lot of stick recently in typographic circles—"it gives a 1960's look to everything." But how many of us can tell the difference between Helvetica and some of its more modern competitors?

What, then, is the main use of sans serif fonts? They make reasonably good text fonts, though they are more popularly used in this way in the US than in the UK. They are also the main font for giving information. Look at all our road signs and see if you can spot one that isn't a sans serif.

They are also widely used in advertising, and really come into their own when you wish for a legible white on black panel. So, since it's there, and free, and we might want to use it a lot, let's keep Homerton. However, it is worth expanding the four font family to add light and black versions, and Hull or one like it can easily be re-named if you cannot find one actually called Helvetica.

So, do we need any more? I like to have a slightly quirky one like Benguiat.Gothic for more informal use, and Coliseo for where a heavy sans is wanted as display. For really informal use, how about Comic.Sans or Tempus.Sans. Oh, and of course, I would always include Optima.

And already I have used up my allocation for this issue so having got these standard workhorses of the typographical world out of the way we can look forward next time to an exciting selection of display fonts.

Terry Pearce

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The popular enhancement utility to the Ant Internet Suite.

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Special 'Fresco only' version of AntUtils, for Argo Voyager Users.

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Shanghai - A desktop version of the classic Chinese strategy game. Can you remove all the matching tiles in the quickest time? Featuring different tile sets, board styles and difficulty levels.

BlackJack - A desktop version of the popular casino card game, featuring full casino rules.

Nightmare Park - A bonus RISC OS version of the original BBC B classic featuring the original 'mode 7' graphics but now RISC OS 4 and StrongArm compatible.

VZap **£10.00**

The original Acorn virus scanner.

- Free support as and when new viruses are discovered
- Easy use. Start scan with only two mouse clicks.
- Network compatible for schools and colleges.

These and **more** shareware applications and utilities are available to download for free evaluation from:
www.digitalphenomena.co.uk/software.html

Web design and general Acorn/RISC OS consultancy and help available. Please email for details.

ArtWorks goes transparent!

The best-selling advanced vector graphics package for RISC OS just got even better!

Crystal example file, created by Henk Huinen

Crystal

Transparency in ArtWorks

- Three different kinds of transparency: Mix, Stained glass, Bleach.
- Apply a transparency kind and percentage to any ArtWorks object.
- Unique group transparency feature to make whole groups transparent.

"Crystal module" £35*

Requires RISC OS 3.5 or higher and ArtWorks 1.5 or higher.

New: Order online with your credit card from Co-Comp! More details: http://www.mw-software.com/paying.html

ArtWorks plug-in modules

Enhance your copy of ArtWorks

- Enjoy the latest features, bug-fixes and improvements!
- Enter a whole new world of design opportunities with transparency!
- Finally you can enter and edit text in rotatable, multi-column text areas.
- Pattern-fills, hatching, dynamic replications, native JPEG support, Sprite/GIF export, ...

"Full Set Collection" (19 modules) £90*

All plug-in modules and the Updater utility.

inc. Crystal!

The MasterWorks Edition

The complete solution

- Includes ArtWorks 1.7 (developed by Computer Concepts).
- Plus the full set of plug-ins, enhancements and bug-fixes published by MW Software.
- Features include transparency, multi-column text areas, Sprite/GIF export, pattern fills, ...
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"The ArtWorks MasterWorks Edition" £159**

ArtWorks 1.7 and all 19 plug-in modules.

inc. Crystal!

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Germany

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http://www.mw-software.com

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RISC OS Show time

Maytime is show time in the RISC OS world and Saturday and Sunday, May 18th/19th are this year's unmissable dates. The Wakefield Show is exactly the right place to catch up on new products, upgrades and old favourites, and all the gossip! Once again the event is being held at the Thornes Park Athletic Stadium, Wakefield and the opening times are Saturday 18th May: 10:30am to 5:30pm. Sunday 19th May: 10:30am to 4:30pm.

With everything keenly priced it could be right time to treat yourself to a larger, gentler on the eyesight, LCD monitor or, for those who don't like to miss a thing, a new sound card or speaker system. For would-be artists and designers MW Software continues its very successful mission to bring ArtWorks into the 21st Century. Also strong on development is Cerilica's Vantage package and their recently released Insignia program.

So without further ado let's see what's in store:

Exhibitor List

50 Acorn User (Tau Press)

With the very latest, June, issue of the magazine plus recent back issues. The June issue will feature exciting reviews of new products as well as the regulars articles from our expert writers.

5 Akalat Publishing

The very latest issue of Acorn Publisher will be on sale with part eight in our popular series on Photodesk, the next instalment in our tutorial on the use of EasiWriter, and the first in a new series on web page design.

Then there is a full review of the new Crystal module for ArtWorks. All part of our ongoing support for users on dtp, graphics and web design. Look out for special offers for new subscribers and on back issues. We will also have an extensive range of relevant books on sale.

40 APDL

APDL will have their full range of hardware products, including hard drives CD ROM drives, IDE interfaces (including the ultra-fast Blitz interface) and some very special offers on CD writers. Don't miss the incredible APDL Special Edition Mico computer. The lowest price RISC OS computer ever at under £340 + VAT, and that includes hard drive, CD ROM and RISC OS 4.

On the software side there's a massive range of items, including the APDL-ProAction collection with products such as Sleuth OCR, Studio24 Pro and Hard Disc Companion, plus the complete iSV Products range. We hope to have updated versions of some programs available for the show, including new versions of Repton and Masterfile.

We will also have printed manuals for many of iSV Products programs. Previously these were supplied in on-screen versions only, but now APDL can supply printed manuals for DrawWorks 3rd Millennium, Easy Font Pro and Font Fiend.

If you want a chat come on Sunday, because past experience shows that on Saturday it can get rather busy at the APDL stand as there always seem to be lots of people looking for (and finding) bargains.

20 Archive Publications

Archive Publications have announced that they will be using the Wakefield RISC OS 2002 Show to launch their latest publication. Founding Editor Paul Beverley said, "Our hope is that the first issue will actually be on sale at the show, but if we don't make any promises... well, you know how it is!" Well worthwhile visiting the Archive stand anyway for the latest issue of Archive magazine and the Archive CD, one of the 'best buys' at the show.

4 The ARM Club

The club stand will be distributing the traditional selection of advice and information, along with offers on Club Membership and copies of software including DiscKnight the hard disc checking software.

29 Association of Acorn User Groups

All the details of the worldwide usergroups, as on the AAUG Web site, will be available on their stand. On offer will be a 25% discount off domain registration and web hosting services for all domains ordered at the show. AAUG will also be selling hard discs at very special prices.

1 Castle Technology Ltd

Castle look forward to seeing their customers, old and new, at the show where they will be demonstrating an exciting range of products for the RISC OS (Acorn) platform, including:

NEW PRODUCT — 32-BIT *100BaseD* NETWORK CARD

A new 32-bit, 10/100BaseD networking expansion card from Castle's stable of products for the RiscPC and A7000 range of computers. Featuring unbeatable performance this is the first and only 32-bit 100BaseT card for the platform. It offers up-to-date connectivity, fastest possible network throughput with a host of supporting features ensuring ease of installation and use.

The KINETIC RiscPC which features SD RAM, and is therefore up to 4x faster than an original StrongARM Risc PC. With full compatibility for all current software, the Kinetic RiscPC leads the way forward for ultra fast RISC computing.

OREGANO the new fast, fully featured Web Browser for the RISC OS platform. Compatible with all RISC computers running RISC OS 3.5 and above, Oregano supports the widest range of WWW features, it is also fast and easy to use.

CD WRITERS Fast CD re-writers both IDE and SCSI including !CDBurn software.

LCD IIYAMA MONITOR A fantastic range of LCD monitors at an unbelievable price. Some models come with dual input so that you can connect a PC and Acorn up at the same time. Come and see us and take one away from the stand.

Show Theatre Programme 2002

Saturday

Time	Speaker	Title
11:00 to 11:30	R-Comp/R-Comp Interactive	Latest from R-Comp
12:00 to 12:30	Cerilica Ltd	Graphically speaking
13:00 to 13:30	MW Software	Artworks & beyond
14:00 to 14:30	Brian Jacques	Writing JavaScript
15:00 to 15:30	NetBSD/ARM	Of course it runs NetBSD!
16:00 to 16:30	Not booked at time of going to press	

Sunday

Time	Speaker	Title
11:00 to 11:30	R-Comp/R-Comp Interactive	Latest from R-Comp
12:00 to 12:30	Cerilica Ltd	Graphically speaking
13:00 to 13:30	MW Software	Artworks & beyond
14:00 to 14:30	Brian Jacques	Using Web Style rules
15:00 to 15:30	Not booked at time of going to press	

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Installation kit £295 Installation £450

For use with standard PC's

DIGITAL CAMERAS Castle offer the excellent SONY Mavica range of cameras. These fantastic Floppy Drive camera are 100% compatible with RISC OS.

48 Cerilica Ltd

Show sponsor's Cerilica are keeping up their previous record of displaying exciting new products. This year Cerilica Insignia joins the companies impressive professional graphics product line-up that includes: Vantage, R-Script, The Publishing Pack and Batch EPS. All products will be on display, demonstrated and available "over the counter".

9 Charity Stall/Wakefield Hospice

31 CJE Micro's

47 Clares Micro Supplies

43 Clic Educational Software/Softease

Clic, an acronym in Welsh for 'Colourful support for the curriculum' produces a range of curricular based resource screens which may be accessed by the My World and Textease applications. Suitable for class teaching using interactive whiteboards or for individual/group work with standard computers, they include the nine pack 'Science series' covering the main topics in the National Science Curriculum and the QCA Schemes of Work for ages 5-11, 'Click and Choose' — a collection of screens for Early Years to practice size, colour and shape recognition, 'The body' and 'Houses and their contents' providing information screens, labelling activities and cause /effect activities for ages 4-7.

Clic is representing Softease at the Wakefield Show and will be demonstrating their products too.

There will be special show offers on all products.

65 Electronic Font Foundry

ExpLAN

ExpLAN will we showing the latest versions of the Solo computers being designed for use in Third World countries. These prototypes will be configured to use an optional hi-tech wireless communications system which is currently undergoing development.

There will also be a demonstration of USB printing and a range of LCD monitors to suit a range of budgets and technical requirements.

66 Fortran Friends

Having recently taken up the fascinating hobby of learning to ring church bells we found that there was little software to help complete beginners and have written !CallChnge with animated bellringers so that we can practice our listening skills without annoying the neighbours.

For those who are just starting to learn change ringing we are working on another product, !Methods, which will be first released at Wakefield. These programs are freely available from our web site, if you like them, we ask for a donation to be used for restoration of bells in our area.

We will also demonstrate other bellringing programs for RISC OS. They all run on PCs using the 'VirtualAcorn' package.

In addition, at this year's Wakefield show, Fortran Friends plan to demonstrate their old established wares:

- Use of Fortran programs on RISCOS, demonstrating compilers, libraries, applications and Desktop user interfaces — and our other hobby, using RISCOS for family history.
- The popular Polyhedra display programs !PolyDraw, !PolyNet and !Stellate, which can be used in schools for Design and ICT as well as mathematics. Come to see our 'Wakefield Tulips' and other polyhedral models made up from the kits available to download from our web site. Free copies of the dodecahedral calendar will be available while they last.

Come and see the new !PolySymm which should be ready for release in May.

64 ITC

Now a leading company in the RISC OS world for machine and monitor repairs, ITC also stock a wide range of Acorn original spares. So don't give up on your favourite computer, talk first to ITC about their part exchange, refurbishment or repair options that are available at very reasonable prices.

60 Brian Jaques

The 'Web Writing' CD (formerly Basic HTML) has changed its name because of the addition of a section on Style Rules and a section on JavaScript. Learn how to write Web pages properly!

26 MW Software

Come and see the latest version of ArtWorks, the best-selling advanced vector graphics application for RISC OS. Discover a new world of graphics design with MW Software's enhancements and plug-in modules.

The Wakefield Show will be the first public appearance of the Crystal module (released in early April) that finally adds the long-awaited transparency feature to ArtWorks.

If you have a copy of ArtWorks already, you will be able to purchase the easy to use updated utility to upgrade to the latest version including Crystal. If you have not bought ArtWorks yet, this is your chance to buy the all-inclusive ArtWorks MasterWorks Edition package — high-end vector graphics at an affordable price!

6 NetBSD/ARM

NetBSD is a free, secure and highly portable UNIX-like operating system available for many platforms, from Risc PCs and desktop systems to handheld (IPAQ) and embedded (xscale) devices. Its clean design and advanced features make it excellent in both production and research environments, and it is user-supported with complete source.

2 Photodesk Ltd

The studio quality art and photo package, Photodesk is available with some very special hardware bundle offers. A range of digital cameras will be demonstrated with PhotoShow software as well as the new USB solution for using digital cameras with RISC OS.

Tony Still, the author of the RISC OS presentation package OHP is taking it through its paces. Purchasers of the new laptop will be particularly interested in this. The new range of Canon printers for 2002 will be demonstrated with PhotoReal drivers

42 PHR Computers / Really Good Software

PHR will be offering a good selection of coated ink-jet papers with a variety of surfaces to suit any printing job, including real canvas for that special picture, and of course replacement ink cartridges for most ink-jet printers. New for the show will be a product to give black and white documents real impact using coloured metallic foils and your laser printer. PHR are also expecting to have some interesting hardware on show.

Really Good Software are showing, on the joint PHR/RGSC stand, their popular

NoticeBoard Professional presentation program, now in version 1.62, that allows running displays or fully controllable slide programs to be created, set up and run easily. Picture Book 2, a six-program fun and educational pack for pre- and primary school children. Also Kids Keys keyboard overlay for any computer.

32/33 R-Comp/R-Comp Interactive

R-Comp will be showing the new Server edition of Messenger Pro, as well as various other versions of the Messenger Pro, email family. The latest version of WebsterXL will be available with (amongst other things) support for Cascading Style Sheets.

R-Comp's web authoring suite — HTMLEdit Studio — will be shown, now in it's v5 incarnation. R-Comp will also have a major new Internet-related release at the show, but are keeping details firmly under wraps.

On the R-Comp Interactive front, you can expect to see and purchase the new 100 Mbit network cards, as well as the various networking packs that we have to offer covering internet (modem, ISDN, cable, ADSL) and printer sharing.

See also the powerful, new, audio-sample editing software demonstrated. For gamers, the highly anticipated TEK strategy game should be available.
61 Serious Statistical Software

25 Stuart Tyrrell Developments

45 Telewest Broadband

Telewest Communications, the broadband communications and media group, provides TV, telephone and internet services to 1.7 million UK households, and voice, data and Internet services to around 73,000 UK businesses. Visit the Telewest stand for full information on the services they provide for private and business applications.

44 Virtual Acorn

Virtual Acorn will be demonstrating their ground-breaking VirtualA5000 software. This turns a Windows PC into an Acorn compatible running a modified version of RISCOS 3.11. VirtualA5000 comes complete with the Universal !Boot sequence and hundreds of full RISC OS applications.

National Train Services

The main railway station is Wakefield Westgate which is well served by the Great North Eastern Railway with frequent services from London and Leeds. In addition Virgin Cross Country trains from Sheffield, Derby, Birmingham, Bristol and the South West call at Westgate.

Frequent Trans Pennine Express services linking Liverpool, Manchester (Piccadilly), Manchester Airport and Huddersfield with York, Newcastle, Hull & Scarborough pass through Leeds which is less than 15 minutes from Westgate by either local MetroTrain or InterCity services.

In many cases Trans Pennine Express services from the North West connect with First North Western local MetroTrain services from Manchester (Victoria) at Huddersfield. These local services run through to Wakefield Westgate after reversing at Wakefield Kirkgate. See below.

Full details of all these connecting services are on the Metro Web site.

Local Train Services

Very frequent MetroTrain services link Leeds, Wakefield Westgate and Doncaster from where there are connections to North Lincolnshire and Sheffield.

There is a second smaller station Wakefield Kirkgate which is served by local services from Sheffield and Barnsley. These continue to Leeds. There are also First North Western MetroTrain services from Manchester (Victoria) via Huddersfield which reverse at Wakefield Kirkgate and terminate at Westgate.

Full details of all these services are on the Metro website.

You may also find the National Rail Enquiry Service useful. They can be contacted on 08457 48 49 50

This services is supported by all the railway operating companies and can give you exact times, routes and changes.

Individual Rail Companies who serve Wakefield can be contacted at:
GNER:(**www.gner.co.uk**) 0845 225 225
Virgin Trains:(**www.virgin.com/trains**) 08457 44 33 66
Arriva Trains (**www.northern-spirit.co.uk**) 08457 484 950
West Yorkshire Metro: (**www.metro-wyorks.co.uk**) 0113 245 7676

Wakefield Kirkgate is an unmanned station about 1 mile from the show and not on a direct bus route so Westgate should be your first choice. The show venue is only 10 minutes walk from Westgate station, or a short bus or taxi ride.

Coaches and buses

Wakefield has a busy bus station in Union Street, served by buses from around the area and also by National Expres and other coach services from other major towns and cities, including London. For detailed information on services and timetables, contact your local bus station, or call 'Metro' on 0113-245-7676 (Minicom line on 0113-242-8888 for the hard of hearing) between 8am and 7pm Monday to Saturday, and 9am to 5:30pm on Sundays and bank holidays.

Local buses

The show venue on Horbury Road is extremely well served by buses travelling from Wakefield Union Street bus station via Wakefield Westgate railway station. The frequency of service, and the number of different routes, ensure that you should not have to wait more than 15 minutes even on Sunday (as long as you are travelling after 9:30am). The most frequent services on Saturday are on those routes which also have a Sunday service.

From Westgate railway station, cross the main road to the opposite side from the station, turn right and walk down Westgate towards the railway bridge. There is a bus stop just before the bridge.

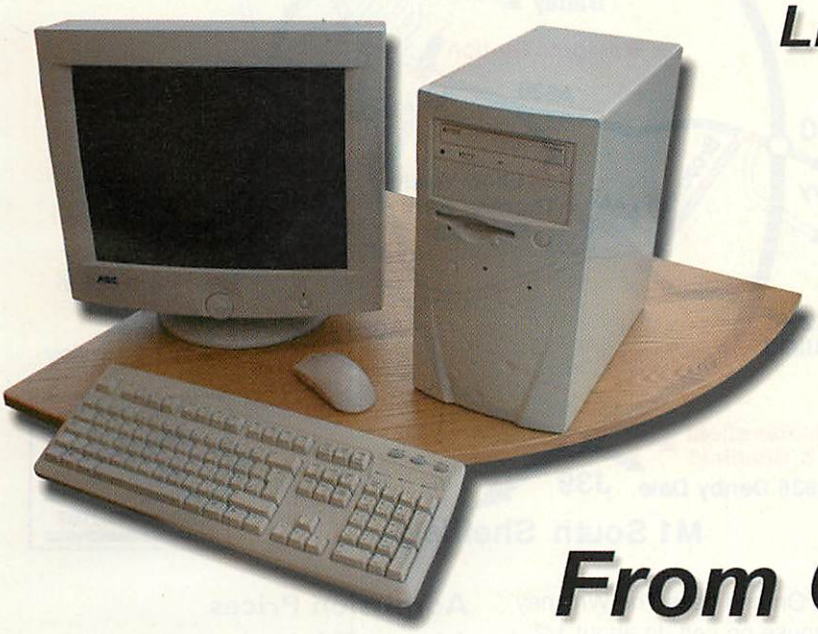
The following route numbers are all suitable:

From bus station via Westgate:
116 Dewsbury (no Sunday service)
126 & 127 Dewsbury

RiscStation
RISC Based Technologies

Acorn User

MEGA HOT DEALS



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Concealed Heavyweight Metal Pen
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2 Button Glidepoint Touchpad
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1 x 3.5mm Mic In Jack Socket
1 x 3.5mm Headphone & Speaker Out
2 x USB Connections
1 x Mini Serial Connector
1 x Mini Midi Port
1 x 10/100base Network Port
1 x 15Pin VGA Connector
1 x SVHS TV Output
1 x PCMCIA Slot
1 x IRDA Infrared Transceiver
1 x 20v DC Power Connection
1 x Docking Station Connection Port
Mains Power Supply Included
Software Bundle (to be announced)

Have you got your deposit down yet?

RiscStation
RISC Based Technologies

RiscStation Ltd.
168 Elliott Street, Tyldesley
Manchester, M29 8DS

Tel : 01942 797766
Fax : 01942 797711
info@riscstation.co.uk

128 + 129 Dewsbury (no Sunday service)
263 Huddersfield
264 Huddersfield (no Sunday service)
265 Netherton
In all cases, tell the driver you wish to alight at Thornes Park Athletics Stadium. The bus stop is outside the Parklands Hotel, and the park entrance is immediately adjacent to the righthand side of the hotel.

For detailed bus timetables, call 'Metro' on 0113-245-7676 (Minicom line on 0113-242-8888 for the hard of hearing) and ask them to post you the appropriate timetable leaflets; all of the above services are listed on only 3 separate leaflets. There is no charge for this service, and the lines are manned from 8am to 7pm Monday to Saturday, and 9am to 5:30pm on Sundays and bank holidays.

Walking from city centre

The show venue is only 15 minutes walk from Wakefield Union Street bus station, and 10 minutes from Wakefield Westgate railway station.

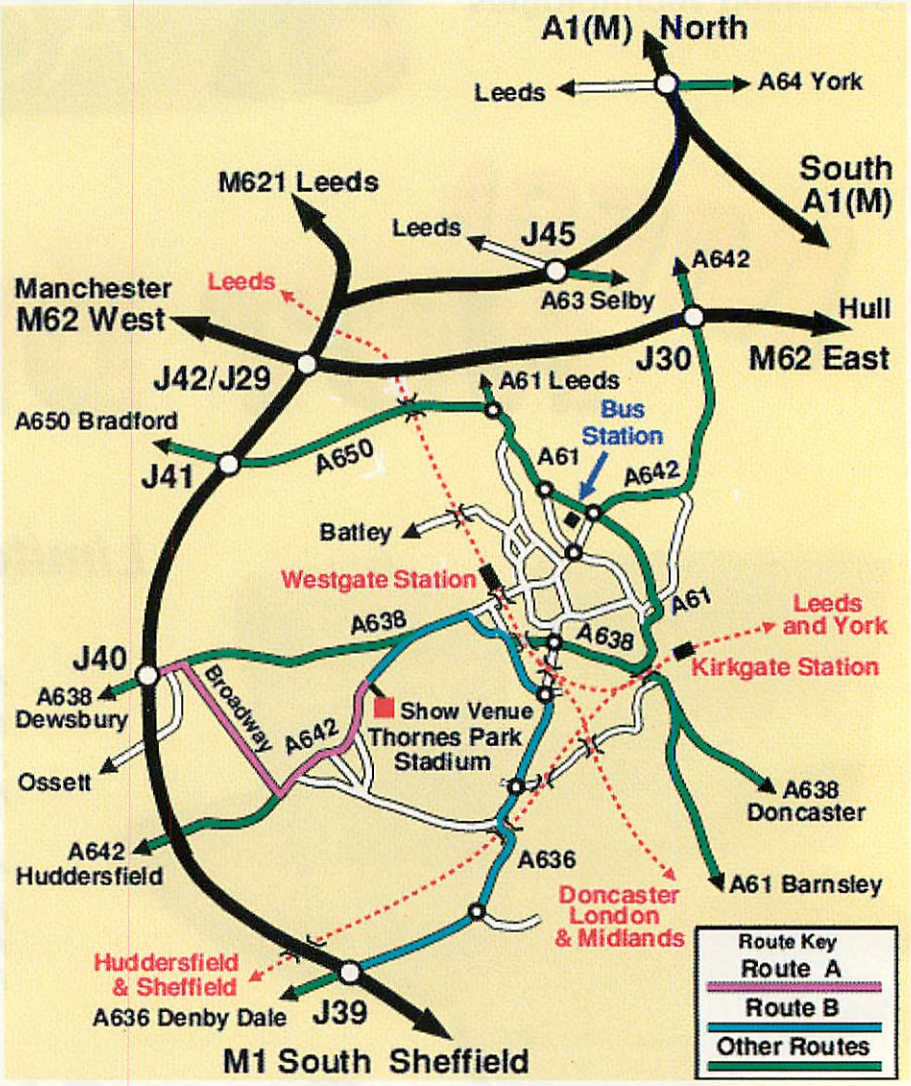
From bus station to Westgate Station -
Turn right out of the bus station into Union Street, and go straight over the Bullring traffic junction, passing Queen Victoria's statue and the pedestrian precinct on your left. Proceed through Marygate, past Barclays Bank on your right, continuing into Westgate, and down the slope towards the railway station.

From Westgate Station to the Show -
Cross the road to the opposite side from the station, turn right and walk down Westgate towards the railway bridge. Continue down Westgate (which becomes Westgate End) for about half a mile, and then bear very slightly left towards Horbury and Huddersfield as you pass St Michael's church on your right. The park entrance is on the left, immediately after the Parklands Hotel.

Driving to the event

Route A from M1 Junction 40
Exit following A638 towards Wakefield. In 200 yards keep Straight On at Traffic Lights. In 500 yards, directly after Pelican crossing, turn Right off A638 following sign to National Mining Museum on to 'Broadway' Continue down 'Broadway' through housing estate to T Junction with The Lupset hotel on your Right.

Turn Left on to main road (A642) and follow it for 1/2 mile towards Wakefield.



Keep Straight On and pass The Whinney Moor public house on Left. In about 1/2 mile, immediately after Pelican Crossing and The Union Public House turn Right into Park Gates to show.

Route B from M1 Junction 39
Leave the M1 at Junction 39 on A636 towards Wakefield on dual carriageway. Keep Straight On at roundabout still on A636 and over river and canal bridges. Zigzag under railway bridge, keeping on dual carriageway (A636) to small roundabout. Keep Straight On with The Holmfield Arms (Travel Inn) on your Left.

Keep in Left Hand lane to next roundabout where turn Left with B&Q on your Right. Keep in Left Hand lane to next roundabout where Straight On, still in Left lane, to traffic lights. Turn Left following signs A638 Dewsbury. Keep Left into main road and follow A638, keeping in Left Hand lane for 400 yards to Junction where fork Left on to A642 towards Huddersfield. In approx 300 yards and immediately after The Parklands Hotel on Left, turn Left into Park Gates to Show.

Admission Prices

Advance Tickets
One day ticket

Adults	£4.00
Juniors (5 - 16)	£2.00
Foundation/OAP	£4.00

Weekend (2 day) Ticket

Adults	£6.00
Juniors (5 - 16)	£4.00

Advance Tickets available online or by post to: Chris Hughes 95 Cumbrian Way, Lupset Park, WAKEFIELD WF2 8JT

At the door, on the day:

Adults	£5.00
Juniors (5 - 16)	£3.00
Foundation/OAP	£4.00

Weekend (2 day) Ticket

Adults	£8.00
Juniors (5 - 16)	£6.00

Wakefield 2002
The Acorn RISC OS Show

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Exact price and configuration will be agreed before shipping.

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All prices INCLUDE VAT & UK carriage
Official orders, foreign orders and callers welcome.

Dr Wimp in practice

This is the first of a short series of articles on how to use the Dr Wimp freeware wimp-programming package. Dr Wimp assumes that you are reasonably familiar with BASIC—but not with programming the Wimp.

Each article will be written to allow you to follow it 'hands on' while sitting at the keyboard and it is hoped that each time you will end up with an application, however small, in a fully-working state.

This first article will show you what is in the package, introduce you to some wimp-programming terms and then focus on how to start using Dr Wimp in practice.

Short history

Dr Wimp was first released in April 1995 by Andrew Ayre. Regular upgrades were issued over the years—many as a result of offerings from enthusiastic users, including me—until Andrew realised that he would soon be departing these shores and would not be able to continue with the support. That's when I hesitantly suggested that I would be willing to take it on, which happened in May 1999. There have been ten upgrades since then.

The nature of the package—which is a complete wimp-programming package—is such that there is always going to be room for additional features and improvements and a typical year sees three or four upgrades.

The latest release is always available on my Web site and this series will start with the assumption that you have just downloaded the four zip-files which make up the complete package of HVersion 3.62 (1st March 2002). Figure I shows the four files you need.

Unpacking & initial browse

Starting with the above files, unzip them all (with, say, SparkPlug) into a single directory in a safe place. The resulting directory will look like Figure II.

It's not important, but if you have the Dr Wimp package on disc from me directly, there will be a slight difference from Figure II. The text file **Upgrading** will then only be in the **Documents** folder.)

Now have a browse around to see what you've got. Most of the folder names are self-explanatory and the !!ReadMe!! file lists the contents of each folder.

The key item in Figure II is the !MyApp application—and we will be looking at that in more detail below. If you try to start it up (and I know you probably will) you will find that, apparently, nothing happens. You're wrong—but let's wait until later.

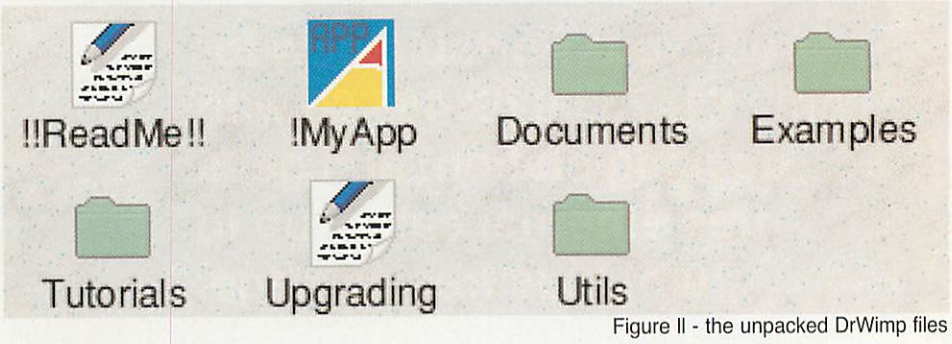

Figure II - the unpacked DrWimp files

The **Documents** folder is quite large because it holds the main Manual of over 200 pages (in Impression Publisher and text formats) and a couple of important reference material aids called Fnc'n'Prc and the StrongHelp-formatted FuncProc. You do not need to look at anything in detail quite yet—but it is worth taking a quick peek at Section 3 of the Manual and, while looking at that, start up either Fnc'n'Prc or FuncProc. This will show you that Fnc'n'Prc and FuncProc both contain exactly the same information as Section 3 of the Manual but present the information in different ways. We will re-visit Section 3 a little later below.

The Utils folder contains a number of useful supplementary utility applications. Some are for use after you have completed your main programming, for example to compact and protect your masterpiece. Others, like TempEd and Fabricate are useful at the very start of program development and we will be looking at these two fairly soon.

The Examples folder contains a couple of dozen or so fully-working Wimp applications made with Dr Wimp. Each is usually limited in scope to demonstrate one particular programming aspect and all are well-commented for you to see exactly how it is done. Try one or two.

You can ignore the Tutorials folder for the moment: it contains material relevant to the tutorial sections of the Manual.

It is worth noting at this point that the contents of all the items in Figure II usually undergo change with each new Dr Wimp release. So they need to be considered as a matched set for each release and you could easily get into difficulties if you tried to mix similarly-named items from different releases.

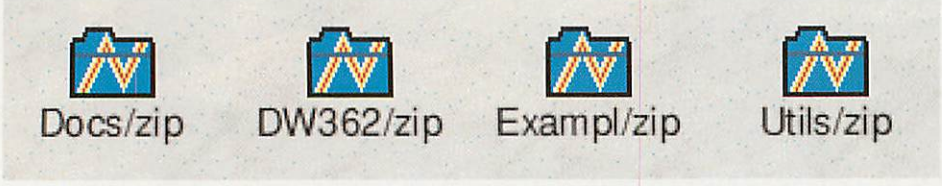

Figure I - the four Dr Wimp zip files you need

Having broadly familiarised yourself with what is in the package the best practice is to regard this as your master copy and use it strictly for 'read-only'. For our current purposes, copy just the MyApp application to a new working directory at a convenient location on your hard disc. It is very important that you keep an untouched version of !MyApp somewhere.

Handles & window templates

Before getting to grips with Dr Wimp there are a couple of important practical aspects of wimp-programming in general which are best introduced early. They are the concept of 'handles' and the use of 'window templates'—and they apply to any type of wimp-programming. Introductory notes on these are contained in separate panels with this article and you need to have taken these on board for what follows.

The MyApp application

We are now able to examine the MyApp application in more detail. So, let's assume you have your working copy of MyApp visible in a suitable directory on the screen.

The MyApp application is a skeleton Wimp application which is used as the starting point for each Dr Wimp application. Each new release of Dr Wimp contains a new completely new version of MyApp.

MyApp is actually a fully-working Wimp application—but it doesn't do much, other than register itself with the Wimp. To confirm this for yourself, run the application in the usual way by double-clicking on the MyApp filer icon. Nothing apparently happens, but now have a look at the Task Display (from the Task Manager iconbar menu) and you will see that MyApp is indeed running. At this stage, however, you can only quit from MyApp from the Task window: Click Menu over the words MyApp in the Application tasks list and select Quit from the Task 'MyApp' submenu.

So, let's investigate further. Do a Shift+double-click on the MyApp application icon and you will see something like Figure III.

Open any other application in the same way and you'll see that Figure III is a reasonably

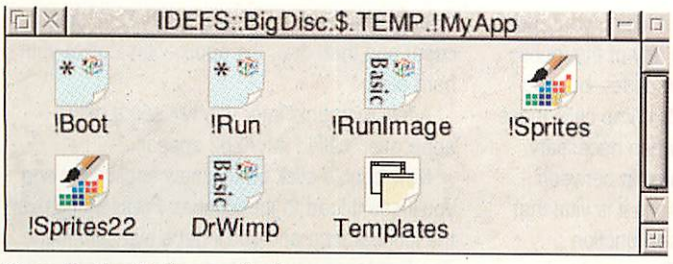

Figure III - the !MyApp application

standard simple Wimp application folder, with only the DrWimp file being the odd-one-out. Note that it includes a templates file as descibed in one of the panels—here named Templates.

Dr Wimp's functions

We are going to concentrate on the !RunImage and DrWimp files, which are both Basic. So load both of them into separate windows of your favourite Basic editor and you'll see that:

• the DrWimp file is simply a long file of Basic DEF PROC/FNs — it is a Basic 'library' file. Note also that each DEF PROC/FN name starts with **wimp_** and these are Dr Wimp's "wimp-functions". Most of the wimp-functions are available for the programmer's use and these are always listed in the Manual, Section 3 and in Fnc'n'Prc and FuncProc. We'll call these the 'public wimp-functions'. Some of the wimp-functions are 'internal' to the package and these are not listed—although they are not hidden from your examination.

• !RunImage has a (very) small main program in its first ten lines, as in Figure IV.

You can see that these lines contain ordinary Basic statements, within which there are four wimp-function calls—as described above. They are, briefly:

PROCwimp_error a global error trap;

PROCwimp_closedown used to quit in an orderly fashion;

PROCwimp_initialise used to register the application with the Wimp and many other internal setting up tasks;

PROCwimp_poll starts the main Wimp polling mechanism;

There is also a call to PROCuser_error—which is clearly not a wimp-function as described earlier. This is, in fact, your first introduction to "user-functions" which we now come to.

You may be surprised to know that for the vast majority of applications, whether big or small, this part of the listing needs no change. You can check this by looking at the various !RunImages in the Example folder applications: most are exactly the same as in Figure IV.

• The rest of the !RunImage comprises many DEF PROC/FNs with names all starting with **user_** and these are Dr Wimp's "user-functions"—see extract in Figure V.

You'll note that none of these user-functions do anything at present. Essentially they all start off 'empty'.

The relationship between the user-functions and the wimp-functions is the crucial part of the Dr Wimp philosophy and it is also the feature that lifts the Dr Wimp library well above being 'just another Wimp library'.

What happens is that each user-function is called from within at least one wimp-function definition. So, in practice, the user-functions (all in the !RunImage) are called automatically and as necessary by the wimp-functions (all in the DrWimp library).

Consequently, if you put some coding of your own choice into a user-function, that coding will be faithfully carried out whenever the DrWimp library calls that user-function.

```
10 REM>!RunImage - for DrWimp Library Version 3.62 **
20 LIBRARY "<MyApp$Dir>.DrWimp"
30 :
40 appname$="MyApp"
50 ver$="0.1 (01-Mar-02)"
60
70 ON ERROR PROCwimp_error(appname$,REPORT$+" at line "+
           STR$(ERL),1,1):PROCuser_error:PROCwimp_closedown:END
80 task%=FNwimp_initialise(appname$,7000,300,0)
90 PROCwimp_poll
100 END
110 :
```

Figure IV

A typical example will better explain the process—and demonstrate how easily Dr Wimp makes things happen.

In Figure 5 again, have a look at DEF PROCuser_mouseclick(). Every time the user presses the Select or Adjust mouse button (when over a window or the iconbar icon of your Dr Wimp application) this user-function is automatically called from somewhere within the $DrWimp library.

Moreover, this user-function has several parameters:

```
DEF PROCuser_mouseclick(window%,
icon%, button%, workx%, worky%)
```

So, when it is automatically called, these parameters need to be properly completed by DrWimp—and they are.

For example, when the user clicks with Select on, say, icon number 6 in the window whose handle is Main% DrWimp will automatically call **DEF PROCuser_mouseclick** with the parameters:

window% = Main% handle of window in which the mouse-click occurred)

icon% = 6 handle/number of icon over which the mouse-click occurred)

button% = 4 the Wimp's mouse-button value. 4 for Select, 1 for Adjust and so on

workx%,worky% the pointer coordinates at the time of the click

In other words, the DrWimp library passes to you—the programmer—the current 'live' values relevant to the user's action. You can then use these to focus your own coding to make things happen the way you want.

So, to continue with the same mythical

```
110 :
120 DEF PROCuser_error
130 ENDPROC
140 :
150 DEF PROCuser_initialise
160 ENDPROC
170 :
180 DEF FNuser_quit(type%)
190 =1
200 :
210 DEF PROCuser_redraw(window%,minx%,miny%,maxx%,maxy%,printing%,page%)
220 ENDPROC
230 :
240 DEF PROCuser_mouseclick(window%,icon%,button%,workx%,worky%)
250 ENDPROC
260 :
270 DEF FNuser_menu(window%,icon%)
280 =0
290 :
300 DEF PROCuser_openwindow(window%,x%,y%,stack%)
310 ENDPROC
320 :
```

Figure V

example, if you want some particular action to take place when Select is clicked on Icon number 6 in window Main%, you simply place the Basic coding for that action inside DEF PROCuser_mouseclick—perhaps something like:

```
DEF PROCuser_mouseclick(window%,
icon%, button%, workx%, worky%)
CASE window% OF
    WHEN Main%
    CASE icon% OF
        WHEN 6
        VDU7:REM** Make a beep. **

iconwidth%=FNwimp_geticonsize(window%,
icon%,0)
    ENDCASE
ENDCASE
ENDPROC
```

which makes a beep (VDU7) when you click on icon number 6 and then calls one of the wimp-functions (in this case the wimp-function to find the size of an icon). Don't worry about about these actions yet: just look at the typical structure.

The use of the CASE construct acts as a 'filter' to ensure that the required actions will only happen when the DrWimp library makes the call as a result of a mouse-click over icon number 6 in window Main%. You could have equally well used other Basic filtering constructions such as IF ... THEN ... ELSE ... ENDIF.

Note that this same user-function will be called for all other mouse-clicks in your application, but the above example coding ensures that the required action only happens when the mouse-click is in the specific window/icon combination required.

Alternatively (or in addition) you could 'filter' the button% value and/or pointer position similarly—and in a normal application with several windows and many icons the routines

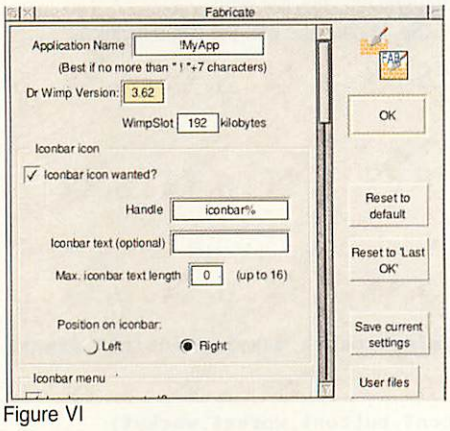

Figure VI

within DEF PROCuser_mouseclick() could become quite long, but still easy to follow with such a construction.

Hence, programming with the Dr Wimp package mainly involves 'filling in' the user-functions with the coding of your choice, employing the extensive arsenal of wimp-functions wherever possible but 'doing your own thing' if you want. You can call any of the 'public' wimp-functions within your own code—but you never call a user-function as Dr Wimp calls those automatically for you, as and when necessary.

Because of the close relationship between user-functions and wimp-functions it is vital that you never delete any of the user-function definitions in the !RunImage. They need to be present, even if they remain 'empty', because they may still be called by a wimp-function from the definitions within the DrWimp library. Think of an 'empty' user-function definition as an instruction to 'do nothing' if/when a wimp-function calls it.)

Now have a browse through the other user-functions and you will see that most of them have parameters included and their names will give you good indications about how they are used. For example, two more of the commonly used ones are:

```
DEF PROCuser_menuselection(menu%,
item%, font$)
```

which is called each time the user makes a selection from a menu—and the parameters give you the menu handle involved and which item was selected, or the font selected if the menu was is font menu.

```
DEF FNuser_keypress(window%, icon%,
key%)
```

this is automatically called, from the DrWimp library, each time the user presses a key and the parameters give you the window and icon handles involved and the ASCII number of the key pressed.

Then have a browse through Section 3 of the Dr Wimp Manual—and try out Fnc'n'Prc or FuncProc which give the same information. These list all the user-functions and public wimp-functions with their parameters. They may seem bewildering at the moment but even a short browse will start to identify some patterns and their names will give you good hints as to their uses.

Armed with this introduction it is hoped that you can now envisage how the !RunImage of any new Dr Wimp application is progressively developed—by 'filling in' the user-functions to meet your wishes—often using CASE or IF statements to focus the actions precisely.

In the next article we'll start to 'fill in' some of the user-functions in earnest. But for now...

Hands on with Fabricate

This first article has been a bit heavy on the words—and we haven't yet met our aim of leaving you with a working application. So try this:

Find the Fabricate application in the Utils folder and start it up by double-clicking on it in the usual way. Then press Select over its iconbar icon to get the window in Figure VI.

Now, without altering anything, click over the OK button. This brings up a small Save window. Change the Save as: name to !MyApp2 (just in case) and then drag the application icon to your hard disc.

A few moments later you will see a new application called !MyApp2 appear.

Now double-click on this new application and you'll see it load to the iconbar. Press Menu over the iconbar icon and you'll get a two-item menu. The first leads you to a fairly standard Info window and the second item quits the application in the usual manner.

You have just created your first Dr Wimp application, in seconds. It doesn't do much (yet) but it has:

- loaded a window template file (containing the EInfo window)
- filled the Info window with custom text
- created a menu, with one item showing there is a submenu/window attached
- displayed that menu, with the Info window as a sub-menu item
- responded correctly to a menu selection (the Quit item)
- quit tidily.

Not bad for a second or two. Have a look inside the new application's folder to confirm that it looks pretty standard.

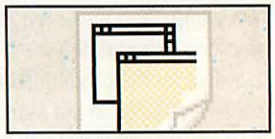
Figure VII

Fabricate can go a lot further than this, but that will do for this first time. Keep MyApp2 safe for next time.

Homework

Compare carefully the !RunImage listing of MyApp2 with that of the original MyApp. This will show you what has been done (by Fabricate) to several user-functions to get the results above and it will also introduce a few wimp-function calls.

It will also be helpful to start working through the Tutorial steps in the Manual. You'll find that they closely mirror what Fabricate has done above.

If you still have time after that, have a browse through Section 3 again—looking in particular at those user- and wimp-functions featured in the !RunImage listing of MyApp2.

Contacts

Download the Dr Wimp package from my Web site at:

www.argonet.co.uk/users/rayfavre/

Email: **rayfavre@argonet.co.uk**

If you do not have internet access then a copy of the latest Dr Wimp package can always be obtained by sending a formatted (1.6M) floppy disc and return postage stamps to:

Ray Favre, 26 West Drayton Park Avenue, West Drayton, Middlesex, UB7 7QA, U.K.

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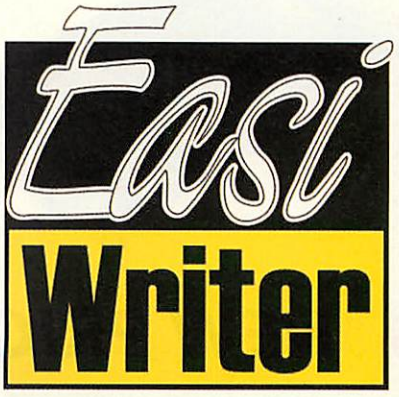

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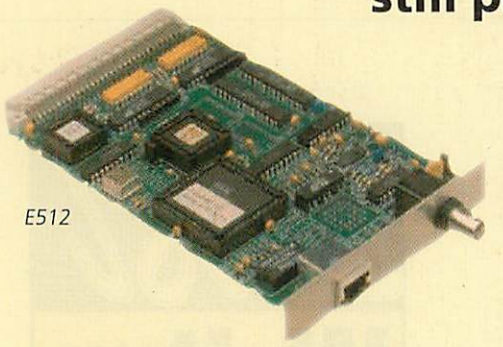

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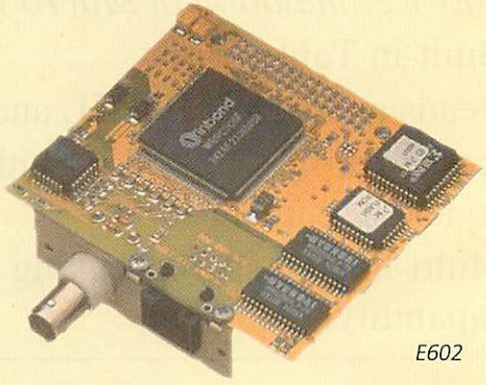

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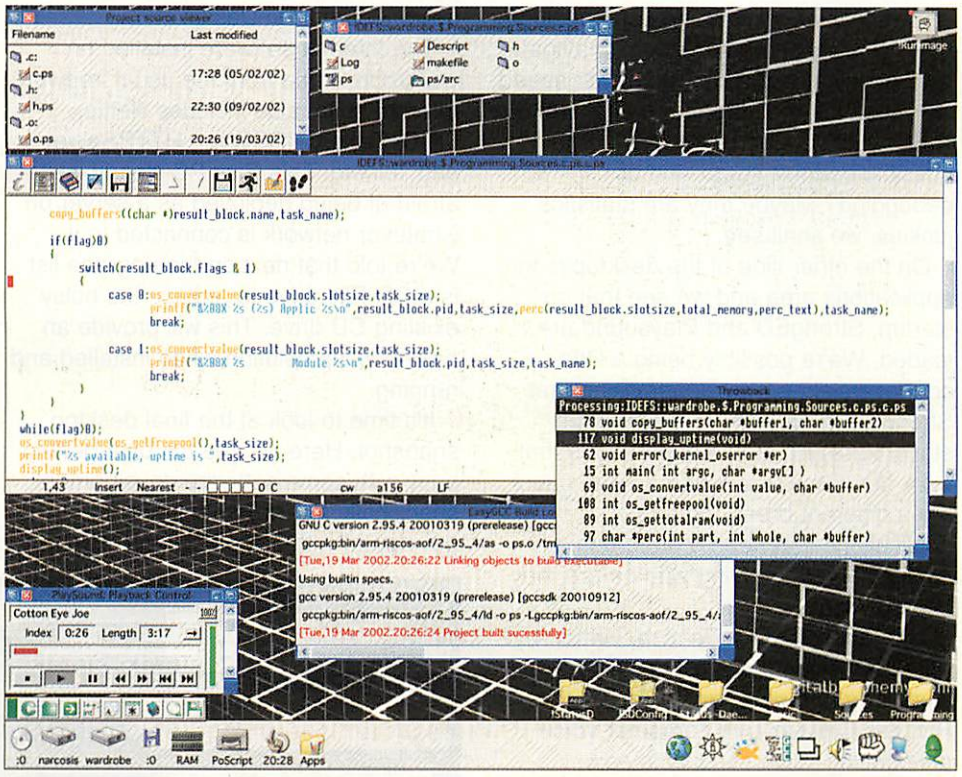
Whose desktop is it this month?

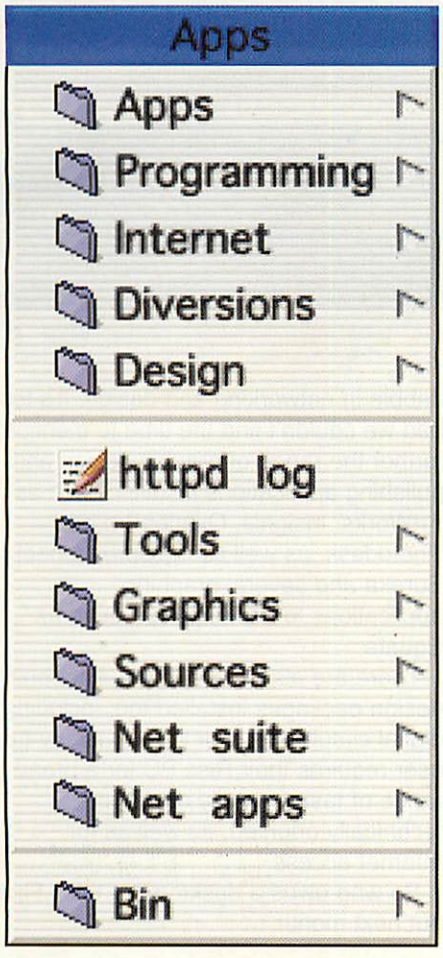
Were you able to deduce the owner of last month's desktop? It was RISC OS software author Richard Butler, who writes EasiFiler, among many other utilities.

So which RISC OS user is behind this week's desktop? Let's begin by inspecting the Desktop soon after a refreshing reboot. This Desktop's vital statistics are 1280 by 1024 in 256 colours - this user obviously enjoys a large canvas to work in and is just itching for a Viewfinder card to further enhance this.

Immediately, we can't help but get the impression that this user prefers their RISC OS computer to be a break from the norm, to stand above all other Desktops and proudly insist that RISC OS can be considered a modern computering environment. Could it be an impressively deep and rich digital-blasphemy.com backdrop that surely provokes clear, original thought and motivation?

The backdrop is a prime example of the excellence expected from Digital Blasphemy and its evening scene involving hues of sullen winter blues and the bewitching silhouettes of fir trees could hint at a user who prefers working late nights and into the depths of early mornings, or a user who simply wishes to employ a passive backdrop that is content in being a purely background piece.





It's interesting to see that in a stark contrast to this unlit canvas, we witness a bright, attractive and aesthetic pleasing set of icons decorating the mildly textured iconbar and Desktop windows. Not a hint of the original ROM-based tools or iconsprites, this Desktop is dressed to impress.

Readers familiar with Microsoft's Windows XP operating system will recognise the toolsprites and iconsprites as this desktop uses Dave Watson's WinXP theme to achieve a cool, modern and cheerful look. It must be noted that this user goes through desktop themes faster than linux hackers go through kernel builds, each month boasts a different style it seems.

We see the user is the proud owner of an IDE podule, an APDL Blitz card to be precise, providing a CD drive and two oddly named harddiscs that reside alongside a floppy drive, a 10MB RAM disc for fast temporary storage, a postscript printer driver, Director and the ROM apps. There's a lot that can be deduced from a user's iconbar, as we shall see.

The harddisc 'narcosis', a modest 4GB harddisc, hosts the user's i586 133MHz second processor card software and Windows98 partition along with the user's university work files and reports. The harddisc, 'wardrobe', considered narcosis' bigger brother with an 8GB capacity, hosts just about everything else.

As the screenshot illustrates, wardrobe holds the user's applications, a large amount of design work for themselves and others, a meek selection of games, an ample range of Internet applications with many, many files and resources downloaded from the Internet, printing resources, a large programming area, text file library and set of standard RISC OS utilities.

This user isn't too obsessed with organisation although it does appear that they do appreciate a logically and practically structured file system. We also get a glimpse at a rather structured programming area, with files split into tools, source and release sections; clearly we're dealing with a RISC OS programmer, although it remains to be seen if they are a commercial developer or a freeware writer.

Moving swiftly along the iconbar, we encounter the Director icon, disguised under a newer icon design from demo group 'The Xperience'. Director is the ultimate desktop enhancement and every user should have it, regardless if they are a normal user or a developer. It provides an excellent memoriser facility for recalling recently used files, directory tree menus, controls over dynamic and module areas, open files and sockets

and more.

We doubt this user could live without it and as a Director user, we can conclude that this user needs to not only navigate their highly structured system with speed and ease but also probe the internals of RISC OS and third party software to possibly perform some kind of debugging? Maybe they are statistics junkies, we shall see.

On the other side of the desktop is the applications area and we see that on startup, StrongED and Playsound are loaded. We're possibly being a little controversial here by generalising that StrongED users tend to prefer more straightforward, stable applications that work out of the box, whereas Zap users are a different breed, prefering applications that need a good deal of configuring and playing with before they become usable.

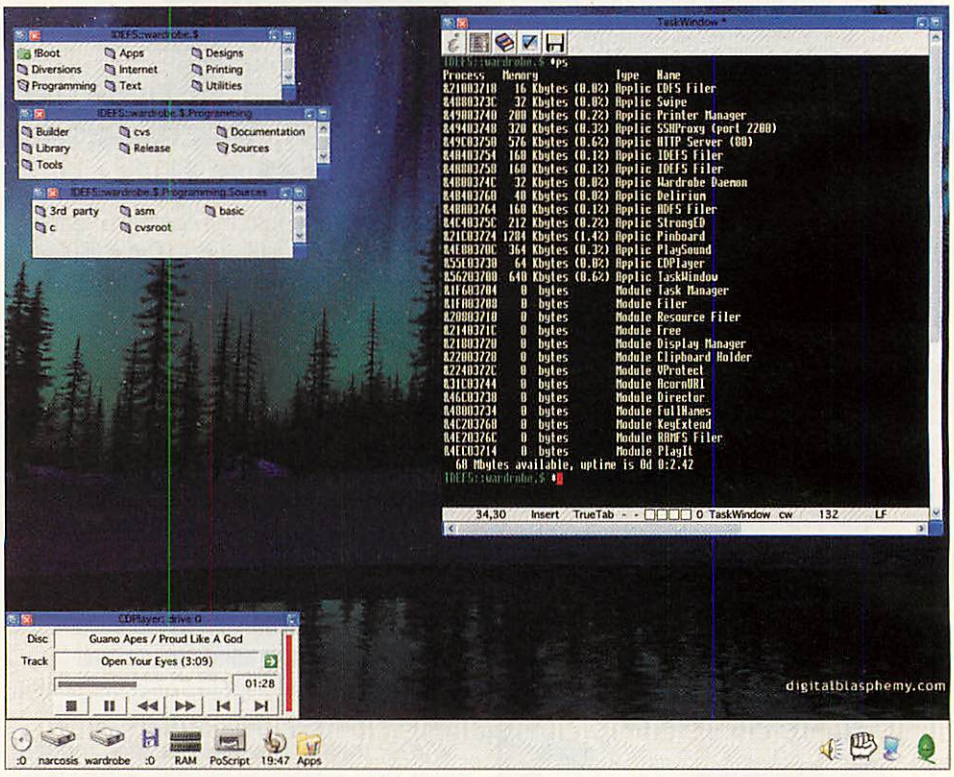
The Playsound application, written by Mark Scholes, incidentally plays a sample from the PC game Team Fortress Classic, of a computer voice announcing "Blue security is now operating". A geeky yet amusing Desktop welcome, we feel. Finally, we can't help but notice the StrongED taskwindow running a little utility, possibly written by this week's user, called ps. This is a program nicked from Unix and displays information about the currently running applications from the command line. 'What's the point?' you might ask, seeing as we have a perfectly good Taskmanager display.

Consider then that this desktop's machine is networked; this command would be very handy if the user needed to remotely access this desktop's machine and see what was running on it, such as from a telnet connection and Justin Fletcher's telnetd server. We can broaden this by encompassing the HTTP Web server and SSH-Proxy software also running along with the mysterious wardrobe daemon application to maybe confirm that this user is into networking with RISC OS? Whatever conclusion you may wish to draw, it is obvious that this month's user delights in getting in touch with RISC OS's technical side.

Before we move onto the next snapshot of this month's Desktop, we should consider what's powering this machine. The computer in question, lovingly called 'wardrobe', is a dual slice StrongARM Risc PC with 96MB of system RAM and 2MB of VRAM with RISC OS 4.27 directing the show. As well as the Blitz IDE podule mentioned above, wardrobe also has a 33K internal podule modem for DialUp and a 10Mbit nework card from Design IT.

The Internet software installed on wardrobe, aside from the usual freeware Internet suite, also includes Nettle, LIRC, Talkerd, IRServer, HTTPServer and Telnetd. This Risc PC clearly isn't afraid of being deployed as a server on whatever network is connected to it. We're told that next on the upgrade list is a CD-RW drive to replace the noisy existing CD drive. This will provide an easy backup solution when installed and running.

It's time to look at the final desktop snapshot. Here we see the user getting busy with some software development, specifically a C program being developed with EasyGCC and GCC.



Notice also the change in backdrop to another darker, technical image, also from digitalblaspemy.com. Looking around the Desktop, we see the EasyGCC project viewer in the top corner and its pretty toolbar in the bottom left, a StrongED dominating the center of the window while flaunting its syntax coloured C editing mode, a throwback window listing the functions in the source file to the ps program we saw earlier and a build log output window.

On the iconbar, we see old programmer favourites StrongHelp, CVS, TemplEd and finally the Web browser Oregano. StrongHelp provides a huge amount of programming and technical information in the form of manuals of linked pages, very similar to HTML and is a RISC OS programmer's best friend. CVS is John Tygat's port of the cvs tools, which allow a programmer to log changes to their source code and versions of their programs.

This allows more than one developer to work on the same program without conflicting with others and also to ensure that they can step back to the last working version commited into the cvs system in case something goes wrong in the source code. Finally, TemplEd is a friendly and powerful window editor that allows developers to design how their software will look in the desktop.

So here we have a colourful, striking desktop that's fair well organised and structured, featuring software tools for a RISC OS software writer who likes to dabble in networking and design. It's too bad we couldn't find the time to mention further the range of graphic design and pulishing applications installed such as ArtWorks, Insignia, OvationPro and Photodesk, as well as the spreadsheet Eureka and several graphing applications to accompany it such as Equate.

There are also two or three electronic design packages installed too, including digital circuit simulator Logix. Clearly this user requires their Risc PC for a broad range of tasks, mostly design or technically oriented, as well as for Internet access.

So who owns a desktop like this? Find out next month.

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Tracking media

We have a slightly shorter space for the article this time around so we will just look at how we get our control window up and running.

As described in the last issue we are creating a skelton structure of a program that has "items" (such as 'control'). This item registers itself with the main program, it contains a number of standard routines such as _init, _startup, _poststart and _windup which are called at the appropriate moment in the program execution.

But this system of allowing parts of the program to register with other parts is taken a stage further as 'control' itself allows other parts of the program to register with it, I have called them 'zones' because each of them has a zone of operation.

In this case 'control' keeps a fair amount of information about each 'zone' and makes some assumptions in each case. First it assumes that each 'zone' will have a main window that is used as the interface to the data in that zone, 'control' keeps a track of the window's handle and also a flag to show whether it is currently open or closed.

When registering each zone supplies two names, one is the name to use when calling the zone's procedures (the internal name), the other is used as for on-screen display (external name).

Figure I shows the zone registration

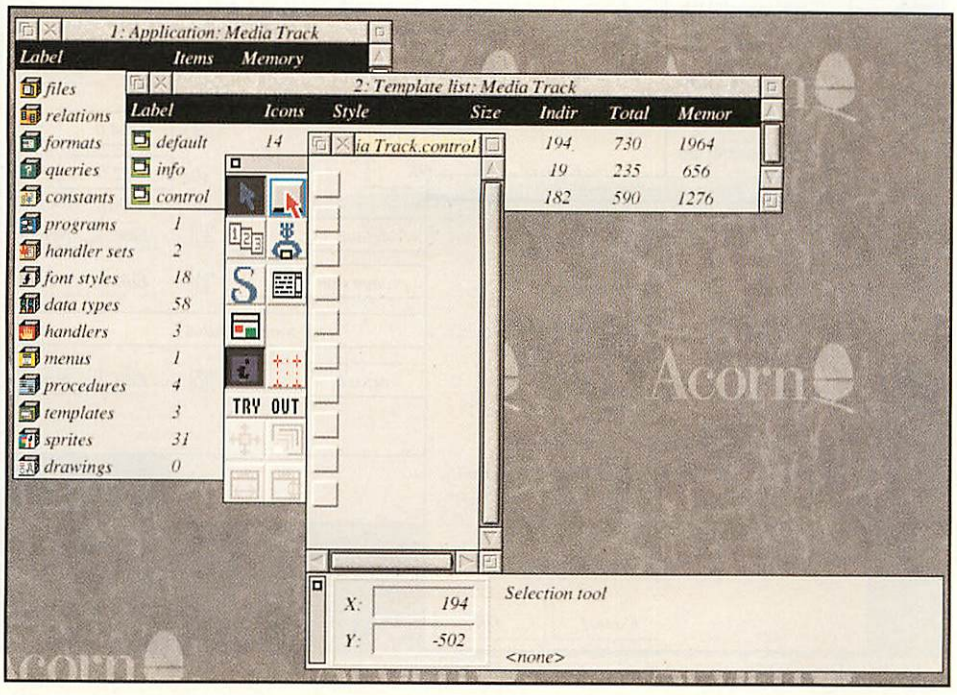

Figure II - the newly created window template for the control card

```
def proc control_register_zone(zs,zt)
  local zh=0
  ctrl_curzone+=1
  card new zh,@tolower(zs+" zone")
  card set header zh,@trim proc toupperfirst(zt)

  ctrl_zones[ctrl_curzone].handle =zh
  ctrl_zones[ctrl_curzone].name   =@trim @tolower(zs)
  ctrl_zones[ctrl_curzone].label  =@trim proc toupperfirst(zt)
  ctrl_zones[ctrl_curzone].open   =FALSE

  return ctrl_curzone
enddef

def proc control_open_zone(zone)
  local zh,zs
  if (!ctrl_zones[zone].open)
     zh=ctrl_zones[zone].handle
     zs=@trim ctrl_zones[zone].name
     @exec("proc "+zs+"_zoneopen")
     card show zh
     card set handle zh
     ctrl_zones[zone].open=TRUE
  endif
enddef

def proc control_close_zone(zone)
  local zh,zs
  if (ctrl_zones[zone].open)
     zh=ctrl_zones[zone].handle
     zs=@trim ctrl_zones[zone].name
     @exec("proc "+zs+"_zoneclose")
     card hide zh
     ctrl_zones[zone].open=FALSE
  endif
enddef
```

Figure I - the zone registration code

code, it is similar to the application registration code but does a fair bit more. First of all it increments the number of the zone we're looking at — this is the number that is returned to the calling procedure and can be used as a handle.

Then we move on to our first window command. In S-Base windows are called "cards" so commands for these always start with 'card'. The first command here is 'card new' which creates a new card using one of the Format resources and puts its handle in the variable zh (zone handle). Notice that the name of the Format resource being used is the internal name of the zone plus the word "zone". This resource must actually exist otherwise an error will be generated at this point.

The next step is to change the title of the newly created card — this is not strictly necessary, you could have this set up in the Template resource definition itself but a Template can be used for more than one Format. So don't assume anything, the external name of the zone is used for the name in the card's title bar.

Next we use the array of zonal structures and initialise it to hold the handle of the window, the two names and state that the window is closed.

We have also introduced two new system functions: @tolower and @trim, the first takes a string and converts any uppercase characters to lower case. The second strips off any trailing spaces from the string. The routine called "proc to upperfirst" takes a string, converts it to all lowercase and then changes the first character to uppercase, so something like aBcDe will become Abcde.

The rest of Figure I shows two more routines, one which shows a zone card, the other hides it. Notice how in each one a zone procedure is called, _zoneopen just before the card is shown and _zoneclose just before the card is hidden. This allows the code for the zone to perform last minute actions before the windows are put on display.

We cannot currently use these routines because we don't have any zones defined. Before we can do that we must have a control card to allow the zone cards to be controlled — logical really.

Getting control

Figure II shows the newly created window

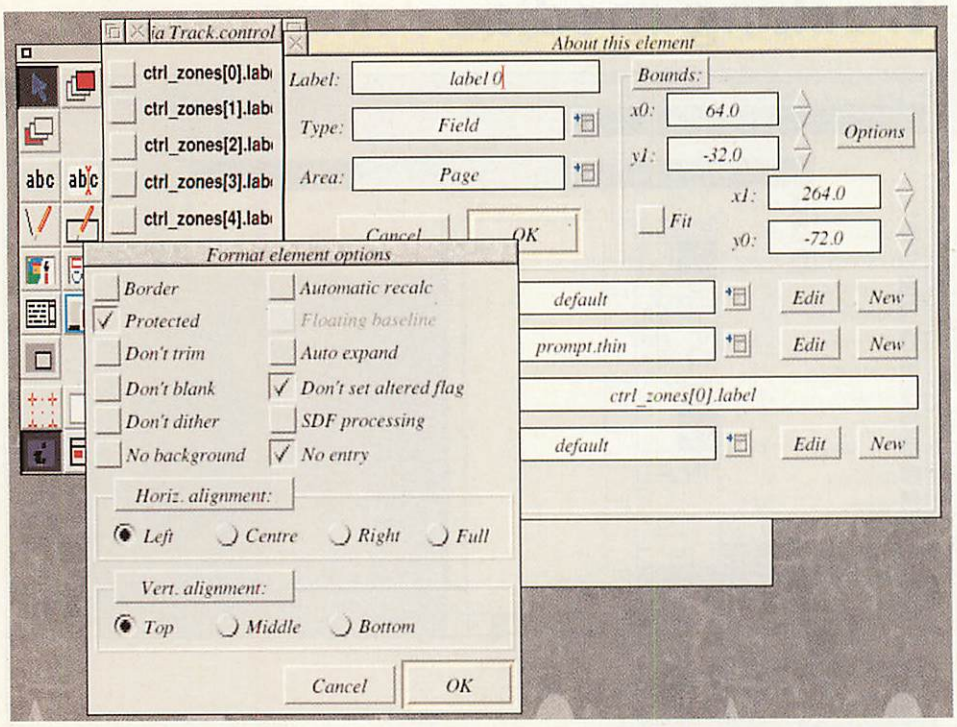

Fig III - setting the button options

template for the control card, we have put a whole series of option buttons down the side, these will be used to open and close the zone windows. The buttons are given the exciting names of zone 0 to zone 9, which means under this implementation we can have a maximum of ten zones — which will be plenty.

Experimentation is actually the best way of creating Templates, using the supplied exmaples and just playing around. But important options are the "TRY OUT" button which displays the template on screen and allows you to move and resize it. Plus there is the "About" button which gives you direct access to the Template's parameters.

Once the Template is designed you move to the Format resource window and following the usual pattern press Control+N which allows you to add a new Format and then takes you to the About this format window. Here you specify which Template to use, ignore the Usage section for now (Card should be clicked) and also ignore the Handler set which will be dealt with next time.

Clicking Okay puts this new format into the list, you can Shift+double-click to bring the window up. If you try clicking on one of the buttons nothing will happen, in fact the identity of the button doesn't even appear in the info panel at the bottom as you move the mouse over the button.

This is because we have to tell S-Base to use these buttons. Click on the tool which looks like a button with the pointer over it (second column, sixth down). Now drag a box that covers all the buttons and release. Suddenly all the buttons will have a box around them, they now "exist" as far as S-Base is concerned and can react to being clicked.

Now, next to each button, we place a field (once we've done one we can just copy). Click on the field create tool (the 'abc' tool with the caret). Click next to the first icon and the About this element window appears, change the Font style to 'Prompt' and the Expression to ctrl_zones[0].label, then click on the options button and set Protected, Don't set altered and No entry. (Figure III)

S-Base has two predefined types of textual display, the prompt and the field. The prompt cannot be edited and stays fixed while the field usually is editable and changeable. In this case we want to use an expression to display what will be a different label for each button — and we don't know in advance what the label will be or how many there are. So we need a field, but we set the various options to ensure it cannot be modified by the user, and we set the font so it looks like a prompt.

Choose the select tool (the arrow, top left of the tools) and click on your first label, put it in position and then press Control+C to copy it. move the new label into position and double-click on it, edit the expression so the zero is now a 1. Repeat down to number 9.

Moving to which initialises the control window. At this point any zone will have registered with the 'control' item and so we know how many there are. The first step is to use 'card new' to create the card from the control format, the set the title bar of this window to the name of the application using the @applinfo() function.

Then a loop is started which hides each button and label that isn't being used. Then the window is shown and, voila, the names of the zones appear next to the buttons. If no zones have been defined no buttons appear. And that's all there is to it.

Conclusion

We continued our headlong rush into S-Base and have actually managed to get a window to appear on the screen. In the next installment we will look at handlers and handler sets, using the iconbar and, hopefully, even get a zone window up and running.

```
def proc control_poststart
  card new ctrl_handle,"control"
  card set header ctrl_handle,@applinfo(0)

  local zn
  ffor zn=ctrl_curzone+1 to CTRL_MAXZONES-1
    card element hide ctrl_handle,"zone "+@str(zn),"label "+@str(zn)
    next

  card show ctrl_handle
  return TRUE
enddef

def proc control_windup
  card dispose ctrl_handle,"control"
  return TRUE
enddef
```

Figure IV - the control_poststart code

Steve Turnbull
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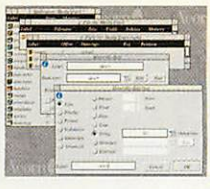

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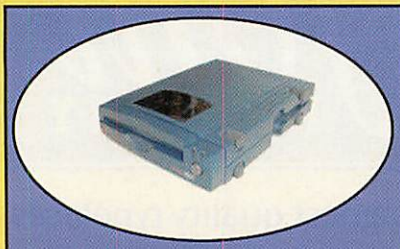

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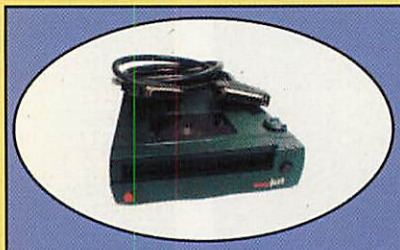

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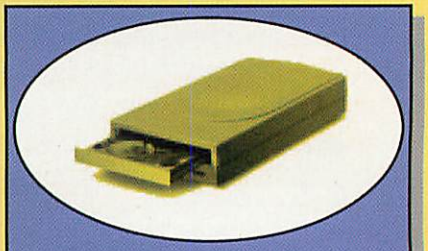

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Field trip ahoy

Last year's foot and mouth epidemic meant that many school trips were cancelled. Some schools went urban, while others went virtual. Many of the best sites are too far away to be affordable, but more and more of these are providing information and activities for virtual visitors. However, others see their websites as a pure marketing tool. Here is a snapshot of what is available...

Capital museums

Science Museum

www.sciencemuseum.org.uk

Entry is free but schools will have to book in advance. Open everyday from 10-6pm. A good site which provides you with the opportunity to plan your visit to coincide with temporary and travelling exhibitions – a mailing list will keep you up-to-date too. You can download activity sheets and there are even activities which can be done at home – homework perhaps?

You can walkthrough the ground floor of the permanent galleries if you have a mind too, but of more use are the 'exhiblets'. These are digital exhibitions which use the collections to describe important events, discoveries and personalities in science and technology: Atomic Firsts – who split the atom and what was its importance? Find out about some famous discoveries that helped determine the structure of the atom; Atomic Clocks – the time by which we all live is now maintained by incredibly accurate atomic clocks. Find out how they work, why we need their accuracy and how they may become even better in the future; Blockmaking – pulley blocks in a ship's rigging may appear insignificant, but the machinery invented to build them at Portsmouth dockyard played a major role in manufacturing history; John Cooke Bourne – a prolific artist and illustrator who pioneered the realistic depiction of the construction of the railways in Britain. This explores his work and discusses new research undertaken by the National Railway Museum in York; Marie Curie and the History of Radioactivity – find out about the extraordinary work of Marie Curie and her family; The King George III Collection – a unique assembly of early apparatus for demonstrating scientific principles. Through these objects scientists were able to disseminate their knowledge of the 'new science'; Huygens' Clocks – Christiaan Huygens spent years devising new mechanisms to improve timekeeping, including the pendulum and the balance wheel and spring which governed almost all clocks and watches for the next 300 years; Amy Johnson – discover the first female pilot to fly alone from Britain to Australia; or how about Garrett Morgan – a prolific inventor during the early 20th century. He patented two life-saving inventions, the Safety Hood (an early gas mask) and the first three-way traffic signal. He was also an active campaigner for the rights and welfare of black people.

Natural History Museum

www.nhm.ac.uk

There are good links to other sites from the first screen – Exploring Biodiversity, the Darwin Centre and Voyages Online. As well as the usual information on opening times there are details new exhibits although the use of language can confuse as to what you do 'interactively' there and what you can do from your computer screen in school. It is vital you book in advance and there are all sorts of options to choose from.

'Being there' exhibitions are detailed such as the Beast Feast for Key Stages 2 and 3 which explores the natural world through masks, music and drawings to learn some attack and escape tactics. A teacher's newsletter provides information on workshops in the wildlife garden or in the Investigate centre for 7 to 14-year olds. This does allow you to plan your visit which is vital with such a huge resource at your disposal.

Again there are activities which can be downloaded and printed out with names such as I spy shapes and patterns, Red hot rock and so on.

Online investigations are available which can be used without venturing out of the school. The Exploring Biodiversity website is a unique science teaching resource packed with online and offline materials exploring patterns of UK biodiversity. It encourages an active learning style where students explore biological concepts through investigation of data. It has activities suitable for students at KS3, KS4 and 16+.

Or how about Walking with Woodlice 2001 which is an internet survey. You start with the key for identifying woodlice, then move on to the recording forms and all the results and conclusions from participants can be seen. All the information you require is on the site and it is suitable for KS2 and KS3. Moving on Seasons on the Web allows schools to explore seasonal variations of the flora in the Museum's Wildlife Garden. This site has pictures of various native UK habitats taken from the same location

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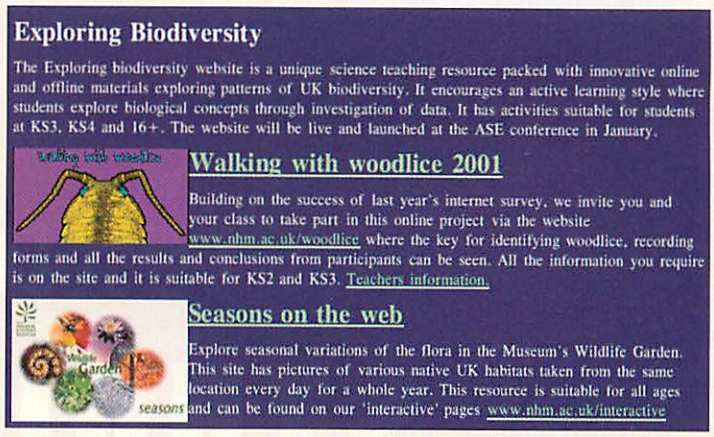

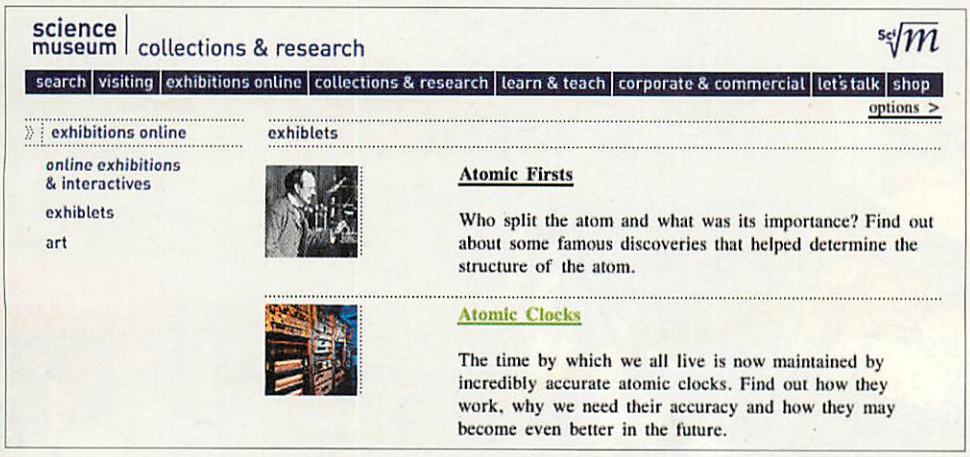

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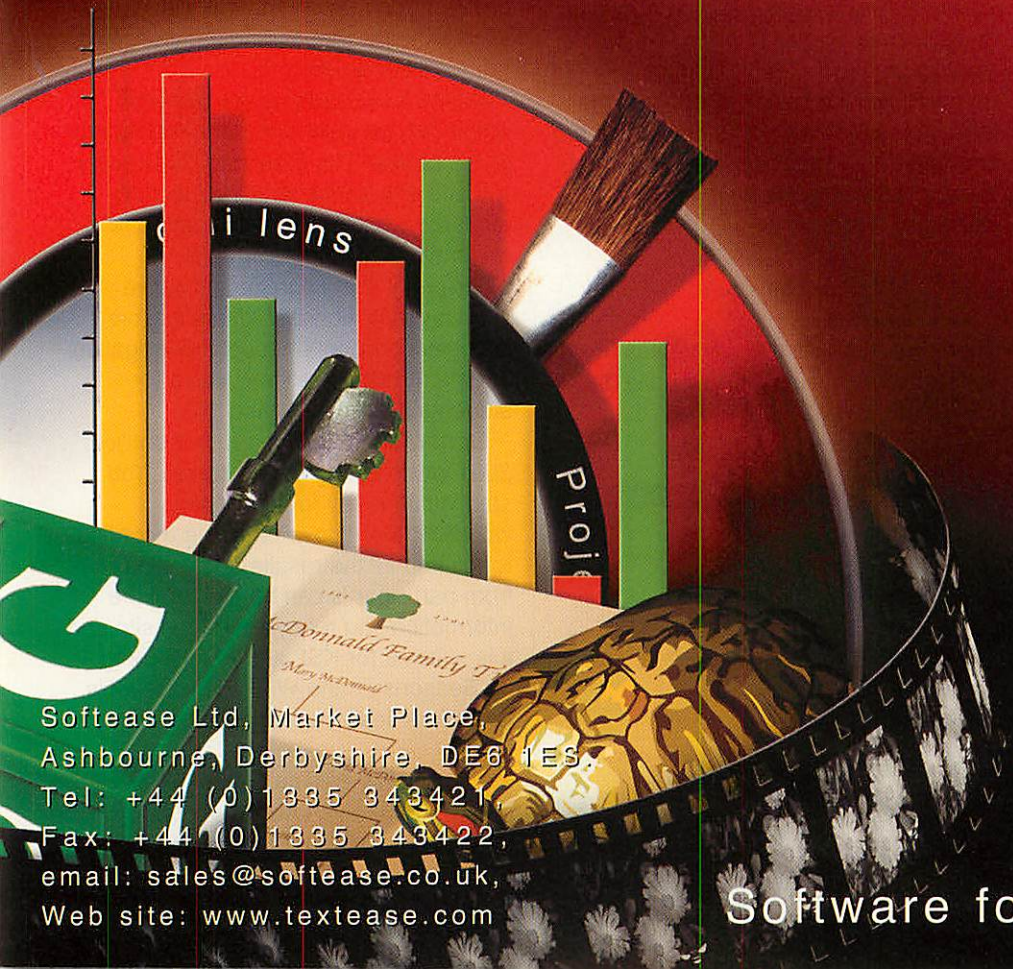

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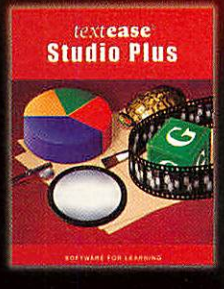


every day for a whole year. This resource is suitable for all ages.

Victoria and Albert Museum

www.vam.ac.uk

There is not a general teaching service to visiting groups although they sometimes offer gallery teaching or courses about the collections on which they are working, for example a literacy programme in the Indian Gallery. The site is stylish but not as informative as some as it is primarily a marketing tool. As the V&A aims to help teachers to use the Museum independently with their classes they offer an annual programme of professional development for teachers and a range of publications – printed and digital. There is some advice on conducting a 'self-guided visit' which is useful for those new to organising trips.

The linked British Galleries which displays the history of British Art & Design from 1500-1900 provides a little more help with suggestions for programmes of work linked to the National Curriculum, downloadable worksheets for pupils to use at the Museum and the option to design your own worksheet online.

Imperial War Museum

www.iwm.org.uk/education/index.htm

One of the best designed sites as it is split between resources and planning a visit. The former provides links matched to QCA schemes of work. Not all of these are free but you can hire items from the film and video archive! You can download pdf worksheets for GCSE, Key Stages 2, 3 and 4 as well as for Special Educational Needs and The 1940s House series from ITV. These follow three major themes: First World War, Second World War and Conflicts since 1945. There is also free access to the collections for teachers. A nice touch are the EFL (English as a Foreign Language) resources for linked sites.

These sites include the Duxford War Museum, Cabinet War Rooms and HMS Belfast – where they have a Kip in a Ship sleepover accommodation as well as The Holocaust Exhibition and new hands-on exhibitions such as Submarines.

For online exhibitions you'll find yourself linked to the BBC site full of resources such as the excellent Children of the Second World War for Years 3 and 4. Then there is The Trench which recreates the experiences of the 10th Battalion of the East Yorkshire Regiment in the Autumn of 1916.

Tower Bridge

www.towerbridge.org.uk

As well as the normal booking information, this small site has put together Education Tour Packs free to school once booked and link Tower Bridge to different aspects of the National Curriculum: History and (Victorians), Science (Materials and their Properties, Forces and Motion) for instance. These include project work for students to do before and after they come, as well as providing a programme for the visit itself.

The site itself provides information and images on why Tower Bridge was so badly needed by the end of the Victorian era, the competition to find the best design, the construction and builders, and its grand Royal opening.

National Maritime Museum

www.nmm.ac.uk

As well as the usual visiting information there is a new addition of five major Key Stage 3 investigations. These support the History (Britain 1750-1900) and ICT as well as providing some opportunities for work within the National Literacy Strategy.

All of these investigations include downloadable resources. For instance, In what ways did people from Britain and the colonies adopt aspects of each other's culture? Students consider different ways in which Britain and the colonies adopted aspects of each other's culture. Or Who can tell us whether Naval life was full of adventure and fun? These investigations are available to download as pdf files. Each investigation booklet considers an overview of a central historical problem and an in-depth study using primary sources related specifically to maritime history. When it comes to investigation students collect information from the Search Station website, and a conclusion section, where students present their findings and interpretations within a writing frame or as a presentation.

In addition the Old Royal Observatory (www.rog.nmm.ac.uk) is linked to this site with a diverse set of resources from South African star myths covering Orion and the Pleiades to the Southern Cross to news events such as Comet Ikeya Zhang discovered by two astronomers in the Far East which has become visible to the unaided eye, and is returning from the outer solar system after almost 350 years or information on the 2010 European GAIA spacecraft mission to produce a three-dimensional map of the stars in our Milky Way galaxy in unprecedented detail. Add to these classroom numeracy resources for Key Stage 2, solar system data for the construction of scale models, and classroom exercises for pupils aged 16-18, using data from the Hubble Space Telescope and European Southern Observatory.

Science activities

Eden Project

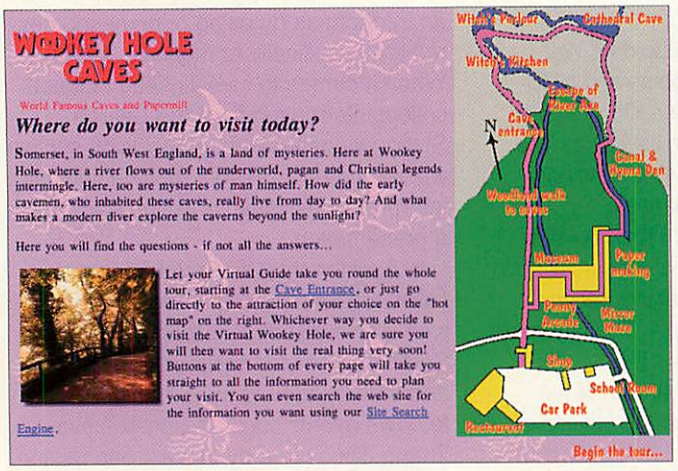
www.edenproject.com

Now a year old, this amazing site comes with three VR tours to the Humid Tropics Biome, Outdoor Landscape, Warm Termperate Biome. Each venue comes with information on its construction and plant stories to go with the biome. Click on a number and up pops information and images of the species. Alternatively look at the list to find information on specific plants allowing you to travel virtually through the Cornish crater while discovering rainforests, mediterranean plants as well as those native to South Africa, California as well as Britain. Though useful for planning visits or for finding information on specific plants Eden's resource for education is still to be finished.

The Deep

www.thedeep.co.uk

Another new venue is The Deep. Called a submarium it tells the story of the world's oceans through time, latitude and depth! The web site has been built to complement the real thing. For instance, you can take the Deep Tour – and travel back in time and watch and explore a virtual recreation of the Big Bang before moving on to discover the Coral Realm, Endless Oceans, Northern Seas, a Kingdom of Ice, Deep Blue One and



Reflections.

Their Learning Centre is up and running with resources for the Foundation Stage, Key Stages 1 to 4 and Post 16. For instance, Key Stage 1 has a science activity on offer in Deep Living! where you compare your own body parts with marine creatures and find out what it means to be alive. While Buried Treasure! involves discussion, role-play, poetry, ICT and research. You can download these activities at any time customise and use them during your visit or at school.

Historical links

Wookey Hole Caves and Papermill

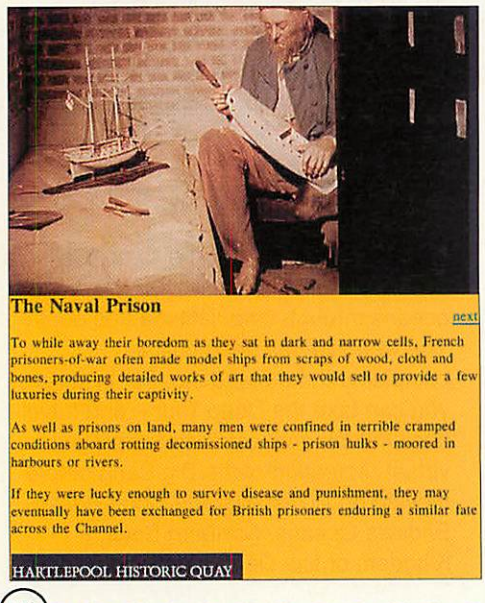
www.wookey.co.uk

Even though it takes school trips and the snapshot tour allows you to plan what you will do on getting there, the site tries to be all things to all men and is a little undisciplined. There is a fascinating history to the site, but it isn't presented in the best way and links to similar sites are not presented, which is a shame.

When it comes to the Papermill there are activities to undertake at the site, there are none available on the web site.

There are 12 activity sheets suitable for Key Stages 2 and 3 on mapwork, coordinates, comprehension, cloze and sequencing which are not the most thrilling activities in the world. In addition, there is also a free loan of a video called "Window into Darkness", which contains useful information on the formation of Britain's limestone caves.

There is more than caves and a papermill here but no use is made of the mirror maze, dancing fountain, fruit machines, the industrial archaeology of the River Axe or even the myths and legends associated with the area. From an educational point of view this is a rich seam which has not been tapped on or off the website.



Hartlepool Historic Quay

www.thisishartlepool.com/hhq/

Specialising in Key Stage 2 there is a poster and publicity leaflets on offer for schools as well as a guide but little for you to do pre and post visit despite the virtual reality centre where you board a virtual fishing coble and sail back in time to experience life in Saxon Hartlepool. You can't access this online, but probably because they don't want to lose the impact.

However, there is information and photos of re-enactments on features of the past: Fighting Ships, Pressganged, Seaport Life and The Quayside with 18th century stalls, carts, barrels, hoists, games and craftsman and even the prison all reconstructed with images, text and sound clips.

Visit in person and you can enter The Maritime Adventure Centre (MAC) where you can trim the sails, man the pumps or test your nerve by walking the foot rope before designing a tattoo, learning about longitude and latitude and plotting a course using the stars under the Celestial Dome. But there is nothing on the web site taking advantage of this.

The Tales of Robin Hood

www.robinhood.uk.com

A stylish site, with excellent information and statistics for GNVQ students of Leisure and Tourism providing an understanding of day to day operations and marketing strategies at The Tales of Robin Hood venue.

When it comes to other subject areas there is a page on the facts, legends, myths, foes and friends but not in any great detail and with no links to allow research. For schools the main pull are the workshops letting you choose between brass rubbings and detection, archery, living history, story telling and falconry displays. Children are introduced to traditional folklore and are asked to distinguish between fact and fiction, by relating issues to contemporary frames of reference. Characters are also available to visit children within their own classrooms during the literacy hour. However, there is no opportunity built into the web site for follow ups or extension activities.

The legend of Robin Hood is brought alive in this indoor site which is aimed at Key Stages 1 to 3. And although the venue uses the smells, sounds and atmosphere of the era the web site doesn't capture this. However, they are developing an interactive copy of the education pack which will be available free both on CD-ROM, and one the Internet.

Ironbridge – Valley of Invention

www.ironbridge.org.uk

A site for industrial archeologists, ecologists and historians from Reception through all the Key Stages of the National Curriculum to GCSE, AVCE, degree and post graduate levels. When it comes to online resources there is a range of publications, some free and some not.

A free introductory handbook is sent to every school that books a visit, and in that is a list of inexpensive publications from posters to books to postcards. The Education Department also seeks to respond to individual and specific requests for information and source materials whenever possible.

There are also online resources: Illness in the Family, Lets Eat and The Mining Disaster. All based around the valley, working museums, world heritage site, famous bridge and new interactive Enginuity. You can even find out more about the nearby Leighton Blast Furnace, which featured in a Time Team TV archaeological dig.

In addition there are collections online from painted china to the images and machines of early industry. This is Darwin country and you can access a website database of collections from Shrewsbury, Ironbridge and Wedgwood Museums showing how the West Midlands really was the cradle of science and technology. A taste of everything but not enough for a meal.

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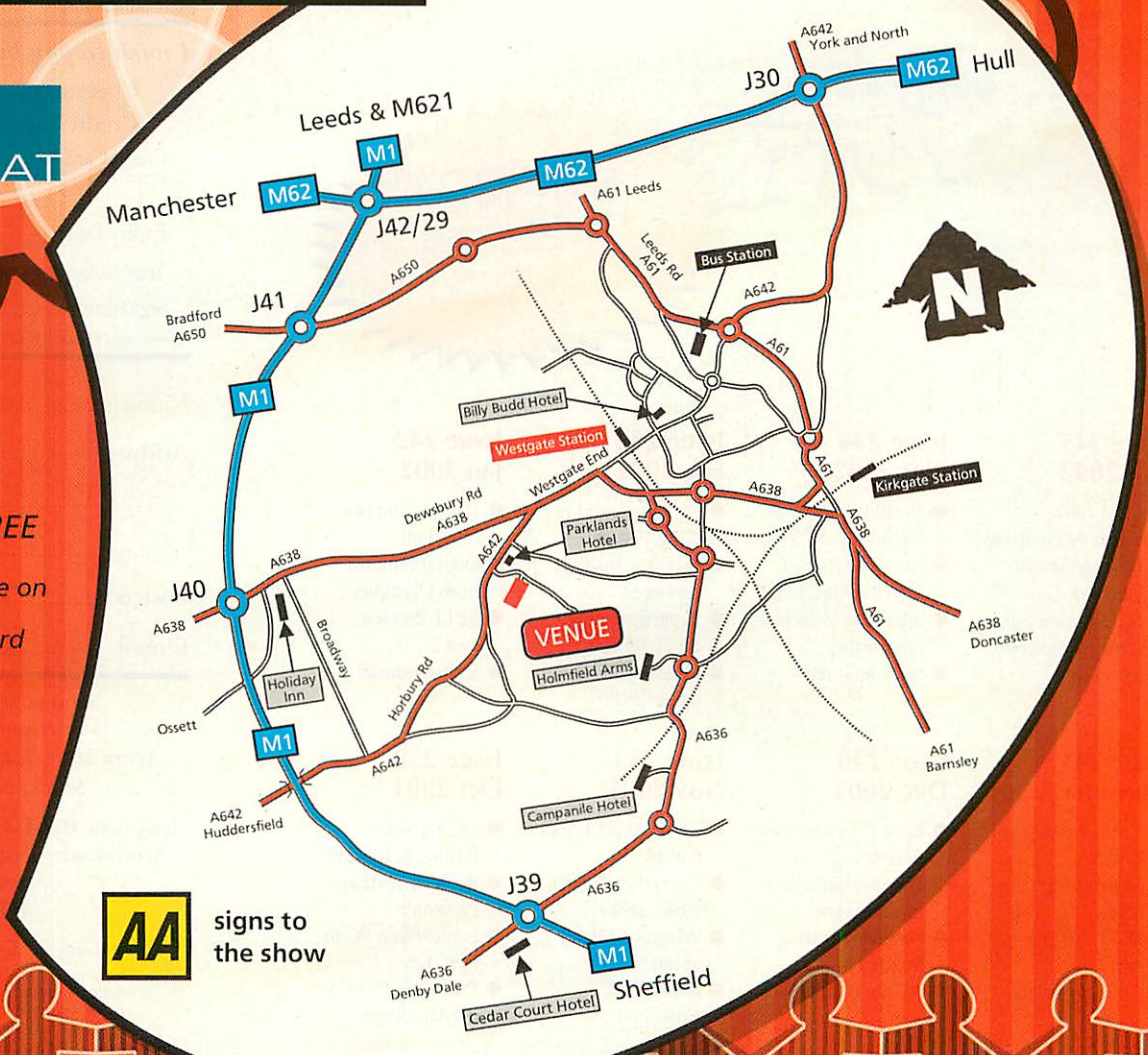

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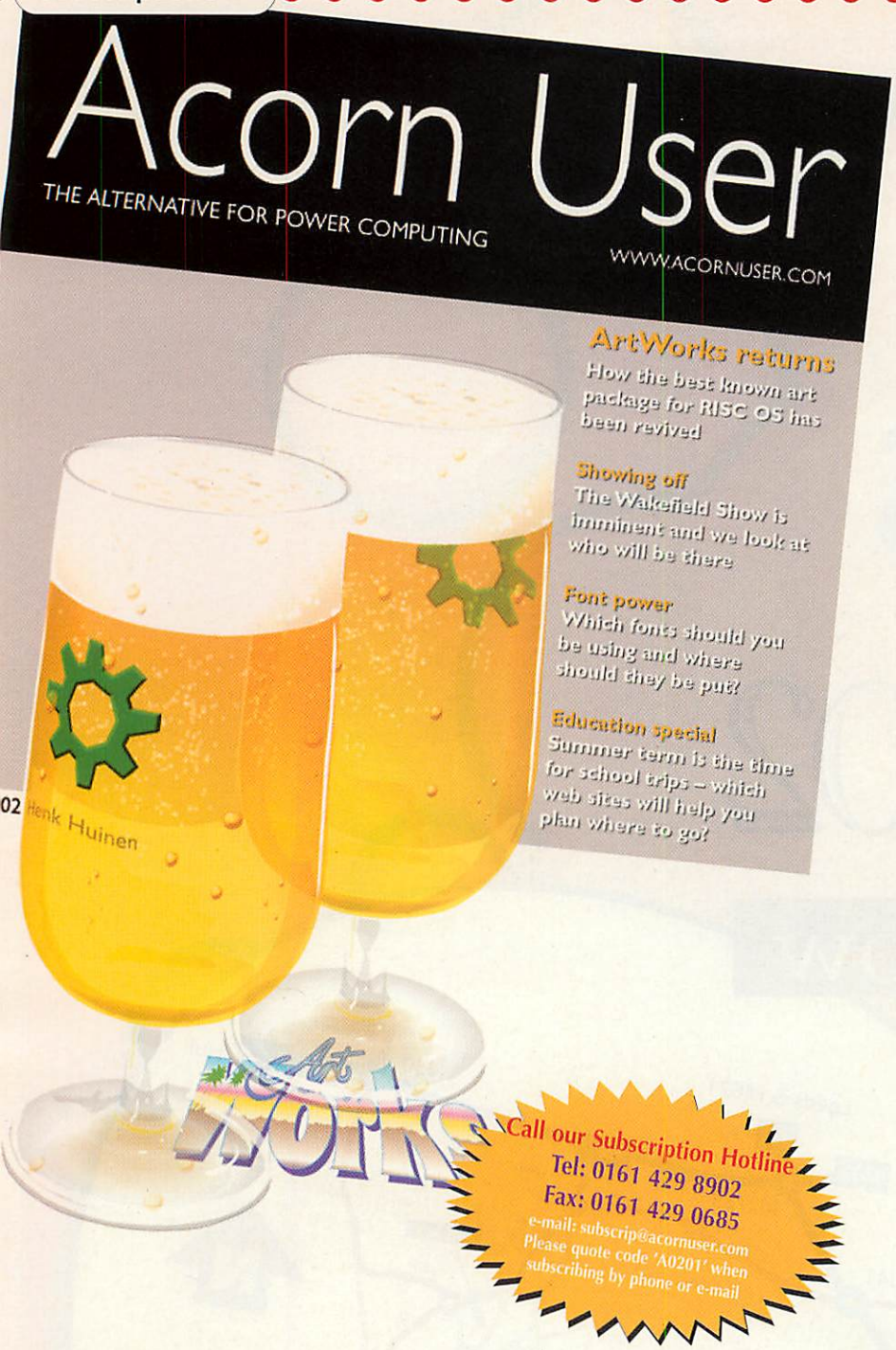

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Investigative reporting

Might I suggest that in the interests of the RISC OS market in general and the consumers that use it, that you indulge in a spot of serious investigative journalism as to what is going on at Microdigital.

Do they have any intention of delivering the Omega? Do they intend to pay back deposits to those who ordered a machine which is more than a year overdue? Do they ever reply to e-mails? Why were they not keen in having their Mico compared with the opposition? Are they in fact ripping people off?

Their apparent inaction is undoubtedly damaging other companies orders and yet very little seems to being said.

Phil Clark
by e-mail

While it may, arguably, have been true that the premature announcement of the Omega was damaging to the market I doubt that is the case now. The machine is so far overdue that anyone who wants to upgrade should now be looking at the portable from Riscstation or going the Kinetic/Viewfinder route.

The idea of investigative journalism is very attractive however quite how you would investigate such a small company is certainly a challenge.

Noisy Risc PC

I read the review of the A7000+/Riscstation with interest, April 2002, and was glad to hear the RiscStation is near silent. I have a Risc PC.

A Risc PC is noisy due to the cooling fan and harddisc. I hear it is possible to tackle both sources of noise. Can the RPC be made near silent? Perhaps you might consider doing an article on muffling a Risc PC in future.

The fan is noisy due to shape of the blades but quiet fans now exist at about £20 each which CJE stock with different air flows and noise ratings.

They say it is a simple fit but best done by a dealer as it involves opening the power supply. But is it much quieter, and does it compromise harddisc or CD cooling?

Some harddrives are noisier than others. I saw a review of a Seagate Barracuda IV, 7200 rpm, with a fluid motor bearing that said it was near silent. Samsung also market harddrives they claim are designed to be whisper-quiet, the SpinPoint drives, such as SV6004H 5400 rpm (60GB) and a smaller one.

Put quiet fans and harddrives in and does the RPC/A7000 become as quiet as the Riscstation with adequate cooling?

Stephen Foord
by e-mail

Wake up!

It's time you guys woke up. RISC OS on the PC is the only way to go. Many other operating systems already run on it. I've been suggesting it for years, including a letter to Acorn User, and have been told it can't be done. Pace have proved you wrong. Good luck to them; I want RISC OS 4 on mine, please! Then I can scrap the Risc PC at last, as it just doesn't do it any more.

Chris Beesley
Stoke-on-Trent

In fact it is not Pace who developed the virtual Acorn, don't forget Pace have zero interest (possibly even negative interest currently – see the News about their problems) in desktop machines. Also I think you are confusing two points in regard to the feasibility of conversion. RISC OS is not running on a PC natively, the PC is running an Acorn emulator on which RISC OS is running.

Those people who told you that it was impossible to run RISC OS on a PC were quite right. The operating system cannot sensibly be converted to run on a Pentium-type processor.

It is too closely tied to the ARM chip architecture (not impossible just an unreasonably huge amount of work).

However (obviously) it is possible to write an emulator. Then, if you have a machine of sufficient power, be in a position to run RISC OS at an adequate speed on it via the emulator.

Do you have a view on this? Send us a letter or e-mail as to your thoughts on the virtual Acorn.

Take a different viewpoint

It saddens me to hear people who use RISC OS machines bemoaning the fact that they can't do all that PCs do. If RISC OS did it would be a PC. I have both working in tandem and I know which one I prefer to use.

RISC OS is amazing in that it can read PC files very easily, EasiWriter reads Word files, most of them, and it strips out PC viruses, Eureka reads Excel and Lotus files, again most of them, and will of course write back to those programs. I send files to PC users but I create them on RISC OS because it's easier and quicker.

RISC OS sends e-mails and reads Web sites. I know it can't use some Microsoft applications, I use the PC if I need to use those, but it is in fact very rare. I go online each day and haven't had to use the PC for this yet this year.

I think we should turn the argument around. Why do I use the RISC OS 95% of the time? Windows can't run Ovation Pro. This is the best Desktop Publishers in existence. Poor PC users, if only they knew what they were missing. Windows can't run PipeDream or Eureka, neither can it run our Draw. It has one of its own that's not a patch on ours.

I create MyWorld files for both RISC OS and PC when necessary, but I wouldn't dream of using the PC for it. StrongEd is one of the best editing programs going, but PCs can't run it.

And there are lots of others. It's very sad, someone should be writing patches and emulators for the PC, legal ones of course, to enable it to come near to the capabilities of RISC OS. But the PC market does not have the dedicated followers doing just that that we have. Many thanks to them, for with their help we are able to do a lot of things a PC does as well as doing brilliantly what RISC OS was designed for.

Paul Wootton
by e-mail

It's certainly a different viewpoint and one that is worth taking — let's count our blessings not bemoan our failings. So remember the next time someone says to you: "Why don't you use a PC?" You just say "It can't run the software I use."

And if you do, let us know what the response is.

Letters Page
letters@acornuser.com

Are you a winner?

February 2002

Back in the February issue we launched a fantastic competition for winning a brilliant 15" Iiyama LCD display from Castle Technology.

Unsurprisingly we had hundreds of correct answers to the competition question which was:

How long did the Castle Web site take to load on the A7000+ Odyssey reviewed in the February issue of Acorn User?

And the answer was just 27 seconds.

In the time honoured fashion of dipping into the hat filled with the correct answer we can now declare that the lucky winner of this prize is:

Chris Dawson of Derby

We congratulate Chris and the monitor will now be located in pride of place on his work desk — taking up much less room and considerably less power than the old CRT monitor.

March 2002

Moving on to the March issue we had an amazing three competitions for winning:

- **a new optical mouse from CTA**
- **ProCAD from David Snell**
- **Sibelius 7 from Datastore**

The questions were:

For the optical mouse "What is the e-mail software supplied with the Riscstation R7500+?"

to which the answer is Messenger Pro+.

For ProCAD+ "What is the PC file extension used by AutoCAD?"

and the answer is DWG.

And for Sibelius: "What are the name of the two brothers who developed Sibelius?"

and they are Ben and Jonathan Finn.

So without further ado here are the results:

R B Owen of Colwyn Bay wins the mouse;

Pete Privett of Exeter receives ProCAD+;

Philip Hawthorn of Cheshire gets Sibelius 7.

Well done to everyone.

Don't forget that in the current issue you have the opportunity to win a Internet domains and web services from SCS and the AAUG, check out page 11.

AAUG/SCS 11
Arcania 18
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Castle Technology ..... IFC
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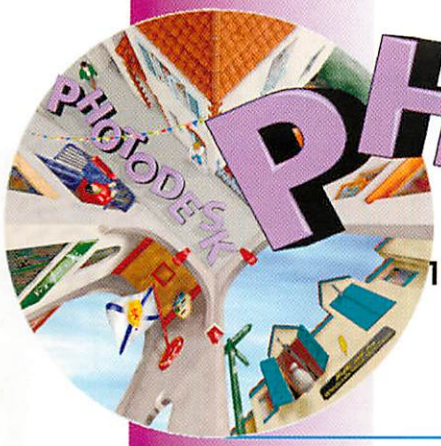

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